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RESERVE

WORK PLAN

for the

National Forest Recreation Survey

A REVIEW

of the

OUTDOOR RECREATION RESOURCES

of the

NATIONAL FORESTS

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RESERVE

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PART I

GENERAL SCOPE AND ORGANIZATION OF THE NATIONAL-FOREST OUTDOOR RECREATION RESOURCES REVIEW

INTRODUCTION

Why the Review is Being Made

In undertaking this Recreation Survey the Forest Service will review all of the outdoor recreation resources of the national forests and other lands administered by the Forest Service with the specific objectives of evaluating these resources, and formulating the policies and plans needed to meet future recreation demands on them. It will be the basis for the detailed recreation plans needed in carrying out the Program for the National Forests submitted to the Congress in March 1959.

It is also hoped that the review will supply most of the information about outdoor recreation resources on lands administered by the Forest Service, that will be needed by the recently created Outdoor Recreation Resources Review Commission.

Rapid Increase in Recreation Use

In 1924 there were 4-1/2 million recreation visits to the national forests. This use has steadily increased. In 1958 recreation visits totaled 68-1/2 million. The rate of increase has risen sharply since World War II and is still accelerating. Between 1946 and 1958 recreation use expanded nearly four times, with the average rate of increase being 11.6 percent per year. From 1955 to 1958 the use increased 50 percent, or 15 percent per year. (See Chart, Recreation Use on the National Forests, appendix, page 1.)

Operation Outdoors, the 5-year recreation development program for the national forests, was designed in 1955 to (1) provide adequate sanitation and care at all national-forest recreation areas, and (2) to provide sufficient recreation facilities to accommodate the present and projected future use (to 1962) in a satisfactory manner and without overcrowding. The Operation Outdoors projections of recreation use have already proved to be 24 percent below actual use in 1958. At present, the use of camp and picnic grounds exceeds their safe capacity by about 70 percent.

The rapidly growing use of their outdoor recreation opportunities has been accompanied by a parallel increase in the demands made on all other resources of the national forests. The same factors that so clearly indicate a continued expansion in recreation use also made it apparent that there will be at least a comparable acceleration in the demand for these other national-forest uses.

In order to assure the future availability of adequate recreation areas and sites in such a condition that they can be so used when needed, it is necessary that all potentially desirable areas and sites be identified, mapped, evaluated and classified now. Only in this way can a proper integration and balance of all future national-forest uses be satisfactorily planned.

National Recognition of Importance

The mushrooming growth in outdoor recreational activities during the past few years, and the problem of coping with it, has not been limited to the national forests. On many fronts there has developed a general realization that (1) the demand for outdoor recreation resources and opportunities in the United States is rapidly increasing, (2) steps should be taken to set in motion a nationwide inventory and evaluation of the outdoor recreation resources and opportunities of the country, and (3) a definite recreation program is required if the future recreation needs of the country are to be met. It was a recognition of this situation by the Congress that resulted in the Act of June 25, 1958 (Public Law 85-470) creating the Outdoor Recreation Resources Review Commission.

The Forest Service survey of the recreational resources of the national forests is directed toward obtaining the information needed in planning the recreation aspects of its own Program for the National Forests. However, much of the information so obtained will also be useful to the Commission.

THE PLAN IN BRIEF

The survey of the outdoor recreation resources of the national forests, commonly referred to as the NF-ORRR, will be accomplished in less than two years, with a final report being made by April 1, 1961. Completion of this task in the relatively short time available, without seriously disrupting impacts at some levels, or on some units, of the Forest Service requires that its high priority be recognized at the Washington, regional and forest levels of organization.

Definition, Land Classification, and Policy

All terms pertinent to the Review have been defined in PART II - DEFINITION OF TERMS.

The classification of recreation lands to be used in the Review is described in PART II - CLASSIFICATION OF RECREATION LANDS.

The broad Forest Service recreation objectives and policies basic to the NF-ORRR are stated in PART II - POLICY.

Tasks To Be Done

There are five separate tasks to be accomplished in making the Review. Complete instructions for doing these tasks are covered in PART III - DETAILS OF TASKS TO BE DONE. A brief description of each task follows:

Task 1 - Develop Projections of Future Recreation Demand

Projections of future demand for recreation on the national forests will be developed for the base years 1966, 1976, and 2000. Basic projections will be in terms of recreational visits for each national forest by States. Details of the procedure to be followed and responsibility for the various steps are given in Part III.

Projections of demand for use of outdoor recreation resources will take account of the prospective population increase and also of the prospective increases of leisure time, of personal income, and of travel. The combination of all these factors is believed to account for the rate at which demand for outdoor recreation has expanded over the past two or three decades.

Provisional projections at the national-forest level will be prepared by the Washington office by April 1, 1959. These will be used by the regions in setting up their field inventory job. Final projections based on more refined methods will be prepared by January 1, 1960, as a basis for final inventory analysis.

Task 2 - Develop Converting Factors

Converting factors will be developed so that recreation demand in visits and visitor-days can be expressed in acres, sites, areas, or resource requirements needed to accommodate in a satisfactory manner the projected demand for recreation on the national forests.

Task 3 - Make the Inventory

An inventory will be made to determine the amount, kind, quality, and location of available and suitable recreation lands administered by the Forest Service, and usable waters related thereto. This will include national-forest lands and land-utilization lands not proposed for disposal to other agencies. Multiple-use management direction will be the basis for determining the availability of national-forest lands for future recreation use. The inventory will consist of selection, examination, and quality evaluation of the recreation land and water resources. Also included will be compilation of data.

Task 4 - Allocation of Available Resources and Determination of Surpluses or Deficits

National-forest recreation resources and opportunities located and described by inventory will be compared with projected demands to determine how the suitable and available lands can best be utilized to serve anticipated needs by the years 1976 and 2000. Available lands of recreation quality will be allocated to various forms of recreation use in proportion to public needs and consistent with the public interest. Present Forest Service recreation policies will be the basis for allocating recreation lands to the various kinds of projected recreation uses. Here it will be determined to what extent the recreation resources can provide for the different kinds of recreation demands in the years 1976 and 2000.

Task 5 - Analyze and Interpret Findings of the Inventory

Information compiled from the field inventory and data relative to the recreation situation from other available sources will be studied to develop means of meeting the recreation needs of the future. Present policies and programs will be reviewed in the light of these findings, and recommendations will be made for a recreation program which will include: (1) Modification of present policies or adoption of new policies for the protection and administration of the outdoor recreation resources; (2) developments and services needed, with estimated costs, to meet the projected recreation demands in 1976 and 2000; (3) research needs in the recreation field; and (4) procedure for keeping the recreation review current in the future.

Each region will prepare a report, keeping data separate by States. Regional reports will be strictly for In-Service use. As a minimum these reports will contain the following:

1. A summary of the inventory by States and region.
2. A balance sheet of recreation resources and projected recreation demands by States, and for the region.
3. An analysis of these balance sheets.
4. Program recommendations for the region, and in the case of the Washington office report, program recommendation of the Forest Service on a national basis.

The Forest Service report on a national basis will be prepared by the Chief.

Time Schedule

1. Final projections of recreation demands by States and national forests -- January 1, 1960
2. Complete field work on inventory -- September 15, 1960
3. Region report due in W.O. -- December 31, 1960
4. Forest Service report -- April 1, 1961

Organization

The review will be undertaken as a special project, and key positions in the Washington, region, and national-forest organizations will be staffed with forest officers experienced in recreation work. Field examination may be done with seasonal employees.

Washington Office

In the Washington office the responsibility for the Review will be shared by the Division of Recreation and Land Uses and the Division of Program Planning and Special Projects.

The Division of Recreation and Land Uses will direct the resource inventory, assist in training regional project personnel, inspect regional projects, and be primarily responsible for the preparation of the overall Forest Service report, assisted by detailers to the Washington office as necessary. The project organization within this Division will consist of a project leader and an assistant, and one secretary.

The Division of Program Planning will develop the projections of total recreation demand on national forests by States, prepare instructions for allocating projected demand on individual forests by types of recreational use, give direction and guidance to regions in making the allocations, and collaborate in the preparation of the overall Forest Service report, particularly in respect to program recommendations.

Regional Office

The organization within regions will be the responsibility of the regional forester. It is, however, suggested that this special project be handled as a section under the Division of Recreation with the assistance of the Division or Section of Wildlife Management in handling the wildlife phases of the inventory.

The regional office will be responsible for assignment of key project personnel in the regional office and on forests, training of forest project leaders, inspection of forest projects, analysis of forest data and findings, and preparation of the region report. The regional office will also make the allocation of projected demands by area classes and purpose-of-visit classes to forests, and give direction and guidance to forests in developing local converting factors and quality criteria.

National Forest

It is also suggested that this project be handled as a staff position on the forest with chiefs of party and crews being recruited as needed. Two or more forests with small recreation potentials may be covered by one project organization.

National forests will be responsible for recruiting and training of project personnel and making the inventory. Forests will make allocations of projected demands to ranger districts and develop local converting factors and quality criteria as directed by the regional office. District rangers and forest supervisors will also balance available resources with projected demands.

Training

Training conferences will be held at the regional and forest levels so that all key project personnel will have a thorough and uniform knowledge of the work plan and procedures. This is essential to obtaining uniform results from the inventory.

At the forest project level, even more intensive training of chiefs of party and field crews will be necessary to obtain uniform accurate data. On-the-job training will be a part of the job. Regional training officers will assist in this training program.

PART II

DEFINITIONS, LAND CLASSIFICATION, AND POLICY

DEFINITION OF TERMS

For uniform understanding and consistent application of terminology in making the National-Forest Outdoor Recreation Resources Review, the following terms are defined and explained.

General

Commission	Outdoor Recreation Resources Review Commission.
Outdoor Recreation Resources	The land and water areas and associated resources of such areas which provide or may in the future provide opportunities for outdoor recreation. Does <u>not</u> mean nor include recreation facilities, programs, and opportunities usually associated with urban development such as playgrounds, stadia, golf courses, city parks, and zoos.
Inventory	The process of taking stock (what, where, and how many). Also the summary of such information listing available and suitable lands and water areas.
Available Land	Lands where recreation is not excluded because of serious conflict with a higher public value and thus may be used for recreational purposes, if suitable.
Suitable Land	Lands which possess acceptable recreational potential by reason of location, topography, physical, and biotic environment, and which can be safely developed and/or used for recreational purposes.
National ORRR	The national Outdoor Recreation Resources Review includes the entire recreation study of the United States, its territories and possessions, being made by the Commission under Public Law 85-470.
NF-ORRR	The National-Forest Outdoor Recreation Resources Review is the study and evaluation of recreation resources on all lands administered by the Forest Service and the usable waters related thereto. This will include L.U. project lands not proposed for disposal to other agencies.

Review	For the purpose of the work plan the term "Review" will be the NF-ORRR.
Projections	Prospective future recreation use expressed in terms of visits and visitor-days use.
Safe Capacity (of area or site)	The number of visitors which can properly and safely be accommodated without damage to an area or site beyond that which could be considered "normal wear and tear."
Visit (FSH 2358.21)	Stay of 1/4 hour or more on any area or site.
Visitor	Each individual occupying an area or site for a period of 1/4 hour or more.
Visitor-day (Man-day)	Unit of time is one-quarter of a day. 0 to less than 1/4 hours -- do not count. 1/4 to less than 3 hours equals 1/4 day. 3 to less than 5 hours equals 1/2 day. 5 to less than 7 hours equals 3/4 day. 7 to 24 hours equals 1 day.
Recreation Area (FSM 2311)	A recreation area is a large tract of land primarily valuable for recreation development and use. A recreation area may include several hundred or several thousand acres of land along a major highway, in the vicinity of a good-sized stream, or surrounding an important lake or reservoir. A recreation area generally may include several recreation sites such as lands suitable for camping, picnicking, organization camps, public services, and recreation residences. Recreation areas usually will include waterfront and roadside zones, and scenic features. Wilderness areas are examples of particularly large recreation areas.

Development Sites

A recreation site is a tract of land suitable for or developed for a specific recreation use or closely related uses. This term is applied to sites which are or should be substantially modified to fit them for human use and occupancy. Such modification will usually include sanitary systems, tables, fireplaces, shelters, roads, or other improvements. A campground, picnic ground, tract of land for winter sports, organization camp, resort, or summer home group, are recreation sites. One recreation site might include facilities for camping, picnicking, and swimming,

though these activities can be separated into different sites. One recreation site would not normally include winter sports, camping or picnicking, and resort use. A site used for more than one purpose would be reported under the primary purpose.

Occupancy site	"Occupancy site" is a term used for convenient grouping of recreation (development) sites which have the same general land suitability requirements. It includes campgrounds, picnic grounds, organization camps, commercial public-service developments, and recreation residences.
Existing development site	The term "existing development site" will be used to include only those recreation sites which are improved to a reasonable standard and are accepted by the region as a part of its recreational development system.
Potential development site	Sites which are suitable for development but not included in the above category are called "potential development sites."
Campground	A site developed primarily for overnight use by campers.
Picnic site	A site intended mainly for the use of picnickers.
Swimming site	A site developed for the enjoyment of swimmers. Natural pools in streams and beaches along lakes, reservoirs, or rivers may be improved wherever practicable. Improvements may include parking, beaches, bathhouses, and related sanitation and safety facilities. (Often but not always an adjunct to camp, picnic, organization, or other recreation site.)
Boating site	A site developed to provide the services necessary for boating. It may include docks, loading ramps, parking, boat rental and boat services, as well as the related sanitation and safety facilities. As distinct from a boating area, it is the site on which facilities are developed rather than the water area upon which boats are operated.
Commercial Public-Service Site	A commercial public-service site is a tract of land developed to provide public services and accommodations. Resorts, hotels, motels, trailer sites, restaurants, stores, and gasoline and oil stations are examples of public-service facilities.

NOTE: Commercial public-service facilities for Boating Sites, Swimming Sites, and Winter-Sports Sites have special site requirements and, therefore, will be listed with those sites rather than in the general commercial public-service category.

Organization-
Camp Site
(FSM 2333)

An organization-camp site is an area developed for organized group use. Lodging, meals, and social, educational, and recreational opportunities incidental to the enjoyment of forest recreation are usually provided.

Recreation-
Residence
(Summer or Winter
Home) Site
(FSM 2335)

A recreation-residence site is a tract of land on which individuals are permitted to establish homes for vacation use. Usually, these sites will be developed with permanent houses; but, when needed, sites may be made available to individuals for house trailers.

Winter-Sports Site
(FSM 2332)

A winter-sports site is an area developed for public enjoyment of skiing; but activities such as snow-shoeing, tobogganing, and skating may be included if justified by public demand. In its entirety, the site may be extensive. Improvements will usually include ski tows, ski lifts, downhill runs, ski slopes and ski trails, terrain for cross-country travel, practice and ski school slopes, warming shelters, and parking areas. Resorts, snack bars, and clubhouses will frequently be a part of a winter-sports site.

Observation Site
(FSM 2323.7)

Places from which the public may view outstanding scenery will be established, developed, and protected as observation sites. Developments will be simple and limited to those needed for public access, safety, and sanitation. The view foreground and frame will be preserved in its natural condition. Necessary parking space is a part of the site.

Dispersed-Recreation Areas

The term "dispersed-recreation areas" will be applied to areas or zones where recreation use is usually dispersed, as contrasted with "recreation sites" where recreation use is more concentrated. These areas as defined are the lands or waters providing particular recreation opportunities. Resource acres are a means of expressing the amount of each of these opportunities. Since the land usually offers more than one recreation opportunity these dispersed-recreation areas will often overlap. For example; areas of hunting opportunity may overlap wilderness, wild, hiking, and riding areas, mountain climbing areas, fishing waters (waterfront), etc.

Wilderness and
Wild Areas
(FSM 2321)

A wilderness area is a tract of land established under Regulation U-1 in which the primitive environment has been preserved. Uses and developments are limited to those permitted under Regulation U-1. Wilderness and wild areas differ only in size. A national-forest wilderness area contains at least 100,000 acres of land and a wild area contains 5,000 to 100,000 acres. The qualities of wilderness and wild areas are expansive solitude and unspoiled natural environment. These large areas in the national forests invite adventure, provide a refuge from civilization, give spiritual comfort, and preserve the flora and fauna for inspiration, enjoyment, and scientific study.

Primitive Area
(FSM 2321.2)

All existing primitive areas established under former Regulation L-20 will be managed in accordance with Regulation U-1 just as though they actually were established under Regulation U-1 or U-2. Each primitive area, and any adjacent lands that have wilderness value, will be restudied as soon as possible to determine whether all or part of it is predominantly valuable for wilderness. Those lands found to be predominantly valuable for wilderness and needed for that purpose will be considered for classification under Regulation U-1 or U-2. Any elimination or change in primitive areas will be made in conformity to the public notice and public hearing provisions of Regulation U-1.

Roadless Area
(FSM 2322.3)

Lands which qualify in general as wilderness, except that certain economic values are codominant with recreation values, may be classified as roadless areas. Under Regulation U-3(a), roadless areas over 100,000 acres are approved by the Secretary, and all other roadless areas are approved by the Chief. The management objective will be to preserve as much of the wilderness value as possible and still permit use of the timber and other industrial uses. Only temporary roads will be permitted in roadless areas. Resource uses will be managed to preserve all possible wilderness values.

Virgin Area
(FSM 2322.4)

Virgin areas have virtually no disturbance of the native vegetation and contain at least 5,000 acres. They are established by the Chief. The principal purpose of virgin areas is for study and enjoyment of the pristine environment. They may be established either inside or outside of wilderness and wild areas. When outside of wilderness and wild areas, access roads and sanitation improvements are permissible. All other uses and improvements are to be excluded from virgin areas. A scenic area is a

place of outstanding or unique beauty which requires special management to preserve these qualities.

Scenic Area
(FSM 2322.5)

Scenic areas may be established wherever lands possessing outstanding or unique natural beauty warrant this classification. Virgin timber tracts, which are too small to be established as Virgin areas, may be given scenic area classification. Waterfalls, gorges, natural lakes, and ponds, or the habitat of interesting, rare, or unusual plants or animals may be similarly protected. Scenic areas will be maintained as nearly as possible in an undisturbed condition. This precludes any form of commercial development and permits only such trail and road developments as are necessary to reach and enjoy the areas. Approach roads, trails, picnic grounds, and parking spaces will be so located as not to disturb the scenic feature or environment.

Geological Area
(FSM 2322.6)

A geological area is a unit of land with outstanding structural or historical features of the earth's development (includes caves). Geological areas will be preserved as nearly as possible in an undisturbed condition. The geologic formations will be protected from the encroachment of roads or other improvements. All practicable precautions will be taken to prevent the defacement or destruction of the geologic formations by vandals.

Archeological
Area
(FSM 2322.7)

An archeological area is one containing significant evidence of use by aboriginal people. Archeological areas are peculiarly subject to vandalism, caused largely by the desire for souvenirs. All practicable precautions will be taken to prevent damage or removal of the remnants. Roads, trails, and other improvements necessary for the use and enjoyment of the area will be carefully planned. Refer to Antiquities Act of June 8, 1906 (FSM 1020).

Historical Area
(FSM 2322.8)

A historical area contains interesting details of the life and activities of early white settlers in America. Battlegrounds, remnants of famous mining camps, old cemeteries, pioneer roads, and early trading sites are examples of historical-area qualities.

Recreation Zone
(FSM 2323)

Recreation zones are technically recreation areas and are strips of land of varying width bordering routes of travel, bodies of water, or recreation developments established for the protection of recreation values. In these zones, recreation values will be safeguarded by the exclusion or restriction of commercial development, uses, and

occupancy. Formal designation of these zones will be made in ranger district and forest plans, and the restrictions and limitations will be clearly set forth.

Width of Recreation
Zones

Roadside, trail, waterfront, and buffer zones are recognized as deserving special attention. The width of recreation zones will be sufficient to accomplish their purpose. Zones generally will be at least 200 feet wide. In timber stands subject to windfall, considerably greater width will be reserved in order to diminish windfall.

Roadside Zone

Strips of land of appropriate width along roads, in which recreation values are protected. (Off-highway turnouts for public convenience and safety may be constructed within designated roadside zones. Parking and other public conveniences will be kept simple and appropriate. When public safety requires, regional foresters may authorize, within established roadside zones, construction of fences and barriers on rights-of-way for freeways, expressways, or limited access highways.)

Roadside zones will be established as follows:

1. Class 1, 2, and 3 Forest Highways or Federal Aid, State, or County Roads Which Are To Be Parts of Proposed Interstate Highway System. All national-forest lands within 200 feet of the centerline of Class 1, Class 2, and Class 3 forest highways (FSM 5600), which are part of the Interstate Highway System, will be given a designation as follows: "Setback line for special treatment -- not to be occupied or used except under authority of the Chief."

A similar designation will be given to Federal Aid, State, and county roads which are not forest highways, but are planned for inclusion in the Interstate Highway System. The above formal designation is made in cooperation with Federal, State, and county highway departments. Widths of roadside zones will not be less than 200 feet from centerline (FSM 2323.2).

2. Forest Highways and Federal Aid Roads (State and County) or Forest Development Roads Not Part of Interstate Highway System. All national-forest lands within 200 feet of the centerline of Class 1 and Class 2 forest highways, and 100 feet of the centerline of Class 3

forest highways, which are not parts of the Interstate Highway System, will be given a designation as follows: "Setback line for special treatment -- not to be occupied or used except under authority of regional forester."

When existing or potential public use of a road is large or is predominantly recreational in character, a similar designation will be given to Federal Aid (State or county) or forest-development roads not proposed for inclusion in the Interstate Highway System. Widths of roadside zones for roads of these kinds will not be less than the above distances.

Trail Zone

Trail-zone policy is similar to roadside-zone policy. Trail zones of appropriate width will be established along heavily used foot and horse trails on which public use justifies the protection of recreation values.

Waterfront Zone

Because recreation use tends to concentrate around bodies of water, and because the public's enjoyment of forest scenery seems to reach its highest degree when water is a part of the view, the Forest Service will establish waterfront zones to protect important scenic and recreation values from impairment. Waterfront zones will be established along lakes, ponds, reservoirs, streams, rivers, and other bodies of water when the existing or potential scenic or recreation values justify such action. Small ponds or small streams will be preserved if they possess scenic or recreation values.

The width of waterfront zones will be in accord with the policy for all recreation zones (FSM 2323.2).

Buffer Zone

When camp and picnic grounds, organization camps, resorts, and other recreation sites receive heavy recreation use, buffer zones will be established adjacent to or surrounding such sites as necessary to protect the background and environment. The width of buffer zones will vary according to the requirements of each case. In general, buffer zones will be established and managed by the policies for all recreation zones (FSM 2323.2).

Areas of Hunting Habitat

A hunting habitat is an area which now, or will in the future, support sufficient populations of one or

more game species to create an incentive for hunters to hunt. The term "game" includes big game, small game, waterfowl, or any combination. Though the size of the area may vary from a few acres to thousands, the habitat for inventory purposes should be a readily recognized unit such as a watershed, mountain range, timber, or vegetative formation.

1. Big-Game Hunting Area - A big-game hunting area is hunting habitat supporting big-game species such as elk, mule deer, white-tailed deer, moose, mountain sheep, mountain goat, antelope, bear, caribou, javelina, and mountain lion.
2. Small-Game Hunting Area - A small-game hunting area is hunting habitat supporting small-game species such as rabbits, squirrels, grouse, quail, pheasants, doves, woodcock, raccoons, foxes, ground hogs, coyotes, etc.
3. Waterfowl Hunting Area - A waterfowl hunting area is hunting habitat suitable for and harboring waterfowl species such as ducks, geese, coot, rails, and snipe.

Areas of Fishing Waters

Fishing waters are rivers, streams, lakes, ponds, and reservoirs which now, or will in the future, support sufficient populations of one or more fish species to create an incentive for people to fish. The term "fish" may include warm-water and cold-water species, or any combination. Wherever feasible, large lakes should be considered as a single unit and large rivers should be considered by sections within the land units to be inventoried.

1. Stream Fishing Areas - Stream fishing areas are restricted to flowing waters -- brooks, streams, and rivers. They comprise two types of streams -- cold-water streams and warm-water streams:
 - (a) Cold-Water Streams - Cold-water streams are those where temperatures range below 70° F. They support such fish species as trout, salmon, steelhead, whitefish, and grayling.
 - (b) Warm-Water Streams - Warm-water streams are those where the temperatures range above 70°F.

They support such fish species as bass, crappie, bluegills, perch, pike, catfish, etc.

2. Lake and Pond Fishing Areas - Lake and pond fishing areas are fishing waters naturally or artificially impounded such as morainal lakes, cirque lakes, reservoirs, beaver ponds, etc. They consist of two types -- cold-water lakes and ponds and warm water-lakes and ponds:

(a) Cold-Water Lakes and Ponds - Cold-water lakes and ponds are those where temperatures range below 70° F. They largely support cold-water fish species.

(b) Warm-Water Lakes and Ponds - Warm-water lakes and ponds are those where temperatures range above 70° F. They largely support warm-water fish species.

Boating Waters

Waters suitable for enjoyment of boating sports and recreation. This includes motor boating, water skiing, sailing, canoeing, fold-boating, rafting, and rowing. To be suitable, waters must be of sufficient depth and size for the activity being considered.

Hiking and Riding Areas

Areas with interesting terrain and scenery through which trails exist or can be provided for the enjoyment of hiking and riding as a recreation activity.

Mountain Climbing -- Mountaineering

Mountaineering is a rather specialized form of outdoor recreation requiring the learning and perfecting of various rock, ice, snow climbing, and camping techniques. It is the sport and science of climbing up and down mountains and attaining high points difficult of access. Pleasure or enjoyment results from challenging and overcoming environmental hazards through physical effort, stamina, skill, mental alertness, and courage. An aesthetic, scientific, and intellectual appreciation of the mountain environment is often involved, but is not usually paramount or even necessary to the experience. In some areas and to many people a mountain-climbing experience can be synonymous with a wilderness experience. Hiking or riding horseback to mountain peaks or ridges is not considered here as mountaineering. (See definition of mountaineering.)

Mountain Climbing Area

Mountain-climbing areas are those parts of mountain ranges that due to characteristics of altitude, general topography and terrain, and type and character of rock provide suitable conditions for mountain-eering.

For the purposes of delimiting the boundaries of mountain-climbing areas, we might say that the climbing area extends no more than a day's hike from the point where it is desirable to use ropes or other specialized climbing equipment or technics. In an extensive mountain range this would apply to the nearest peak. In many cases the actual rock-climbing terrain will delimit the boundary.

CLASSIFICATION OF RECREATION LANDS

Standard Forest Service classification for recreation lands will be used in making the inventory of recreation resources and opportunities, with such changes as are necessary to coincide with classifications which may be established by the Commission as standard for the national review.

In general, national-forest recreation lands will be classified in broad categories of (1) DEVELOPMENT SITES, and (2) DISPERSED-RECREATION AREAS.

Development sites, wilderness-type areas, and areas of unusual interest such as virgin areas, scenic areas, geological areas, archeological areas, historical areas, and recreation zones will include lands on which recreation is or will be the dominant use under the multiple-use management concept. Other uses may be permitted on lands so classified but must conform to and not conflict with recreation use.

Hunting, fishing, boating, mountain climbing, and hiking and riding areas may include lands where recreation use is dominant and also lands where other uses are dominant but recreation use is compatible.

Development Sites

Development sites usually require a considerable degree of improvement or modification to serve specific kinds of recreation use. The improvements usually provide for mass recreation. Improvements and development sites within wilderness type areas are limited to those needed for essential sanitation. In unusual interest areas, developments are limited to those needed to enjoy the areas. An example would be an observation site or campground development in a scenic area. The following classification of development sites will be used in the National Forest ORRR: See PART II - DEFINITION OF TERMS for complete definitions.

1. Occupancy Sites

a. Campground

- b. Picnic Site
- c. Organization-Campsite
- d. Commercial Public-Service Site

NOTE: Exclude commercial public-service facilities on sites designated for swimming, boating, or winter sports. (See Definitions.)

- e. Recreation Residence (Summer Homes)
- 2. Swimming Site
 - 3. Boating Site
 - 4. Winter-Sports Site
 - 5. Observation Site

Dispersed-Recreation Areas

The national forests contain many areas predominately valuable for their natural or wilderness characteristics. Specific area classifications will depend on (1) the degree to which they have been or will be modified from the natural condition and (2) the recreation use they are intended to serve. For example, a wilderness area may only have some trails and minimum sanitation facilities and serve only wilderness travel, hunting, and fishing. A scenic area, however, may have a road and fully developed campground and thus serve other recreation uses. The following classification of "Dispersed-Recreation Areas" will be used in the National Forest ORRR: (See PART II - DEFINITION OF TERMS, for complete description and management policy for these areas.)

1. Wilderness-Type Areas:

- a. Wilderness Areas (Includes primitive areas).
- b. Wild Areas (Includes primitive areas).
- c. Roadless Areas

2. Unusual Interest Areas:

- a. Virgin Areas
- b. Scenic Areas
- c. Geological Areas
- d. Archeological Areas
- e. Historical Areas

3. Zones

- a. Roadside Zones
- b. Trailside Zones
- c. Waterfront Zones
- d. Buffer Zones

4. Areas of Hunting Habitat

- a. Big-Game Hunting Areas
- b. Small-Game Hunting Areas
- c. Waterfowl Hunting Areas

5. Areas of Fishing Waters

- a. Stream Fishing Areas
 - (1) Cold-Water Streams
 - (2) Warm-Water Streams
- b. Lake and Pond Fishing Areas
 - (1) Cold-Water Lakes and Ponds
 - (2) Warm-Water Lakes and Ponds

6. Boating Waters

7. Mountain-Climbing Areas

8. Hiking and Riding Areas

POLICY

The Forest Service recreation objectives and policy as stated in the Forest Service Manual will be basic to the NF-ORRR. The broad objectives and policy are quoted below. Title 2300 Recreation Management should be consulted for more specific policy direction relative to recreation-use management.

The national forests furnish water, recreation, wildlife, timber, forage, and minerals from lands managed as multiple-use public properties. These natural resources are vital to America's industry and people. To most citizens, recreation brings the only direct and personal contacts with the national forests. Everyone benefits indirectly from the other national

forest resources, but millions of people know and love some spot in the national forests -- a fishing stream, a mountain trail, a forest camp, a secluded hunting area, a ski slope, a skyline drive, or a magnificent view.

Recreation in the national forests contributes to the health and welfare of the Nation. Inspiration, enjoyment of the outdoors, relaxation, mental diversion, and physical conditioning can hardly be evaluated in material terms, but their importance to the well-being of people is well recognized and accepted. Toward those ends American people are seeking more outdoor recreation opportunities. As the Nation's requirement for this type of recreation continues to grow, its upsurge is felt by every segment of our national economy. National-forest recreation is an important part of this booming industry. Many local communities and business enterprises within and adjoining the national forests are dependent on recreation activities.

Many indicators point to greater outdoor recreation use throughout the country, with national forests receiving a big share of this increase. It will take the combined resources of Federal, State, and private lands to meet the expected recreation demands of the future.

OBJECTIVE OF RECREATION MANAGEMENT (FSM 2301). The Forest Service management goal for the national forests is to serve present and future public outdoor recreation needs; to prevent unsanitary conditions, pollution, and forest fires resulting from recreation use; to take all measures necessary within reason to assure the safety of users; to coordinate recreation and other types of resource and land uses in a manner which will enhance and protect existing and future public recreation values.

POLICIES OF RECREATION MANAGEMENT (FSM 2302). Recreation use and development on the national forests will be governed by the following basic policies:

1. Recreation resources of the national forests will be made available for public use and enjoyment, insofar as this is consistent with the over-all management of the national forests for the greatest public good. Their proper place in the management of the various resources will be determined through specific analysis and weighing of all relevant factors.
2. Public recreation areas and facilities suitable for forest-type recreation will be developed and maintained in sufficient number to accommodate the average peak-season week-end volume of public use in a safe and sanitary manner and without overcrowding. This will include roads, trails, and back-country areas where patrol and cleanup are necessary.
3. Public recreation areas and facilities will be appropriate to the forest environment. Because the forest environment is one of the most important assets to the enjoyment of national forest recreation, it will be preserved. Forest officers will seek to prevent incompatible recreation uses, overcrowding, and deterioration of the scenic and recreation

resources. Only facilities for forest-type recreation, such as camping, picnicking, skiing, swimming, hiking, and riding will be provided. Facilities for such types of recreation as spectator sports, golf, and tennis will not be constructed by the Forest Service. All recreation improvements and structures will be so designed that the completed improvement or structure performs its intended function and at the same time harmonizes as much as possible with the natural environment. Preference will be given to permanent, maintenance-free construction. To accomplish this a combination of the best principles of engineering, architecture, and landscape architecture is required (FSH 5650).

4. Safeguarding public health and safety and protection of natural forest resources will be of first importance at all public-use areas developed by the Forest Service or constructed under special-use permit. To that end emphasis will be given to satisfactory sanitary facilities, safe water supplies, fire prevention, erosion control, pollution prevention, hazard elimination, and area protection.

5. Special services and facilities, such as large shelters, amphitheaters, ski warming shelters, utility connections for trailers, hot showers, electric lights, stove-length firewood, and clothes checking at bathhouses ordinarily will not be provided by the Forest Service at public recreation areas unless it is practicable to make a charge for such services. Developments of these types will be left for private capital to provide wherever feasible (FSM 2331).

6. Large, popular public recreation areas that are in good condition and have special features or facilities may be operated as charge areas by concessioners where satisfactory arrangements can be made. The Forest Service will supervise the concessioner's operation, regulate the fee, and see to it that the area is kept in first-class condition by the concessioner (FSM 2331).

7. Organization camps for youth groups will not be constructed by the Forest Service, but public, semipublic, and non-profit groups will be encouraged to develop and operate such facilities under special-use permit (FSM 2333).

8. Public service facilities, such as filling stations, restaurants, resorts, motels, ski lifts, ski tows, and boat docks will not be constructed or operated by the Forest Service. Competent concessioners will be encouraged to develop such facilities under special-use permit in locations where there is a public need for such facilities and services. The Forest Service will review and inspect such operations, and the concessioner will pay the United States an equitable fee (FSM 2334).

9. All recreation improvements and structures developed by private individuals under special-use permits will be planned and designed to perform their function and at the same time harmonize with the environment as much as possible. The permittee will be responsible for preparing the plans and

designs for approval by the regional forester. Construction will not be permitted until the plans have been approved (FSM 2334).

10. Roadside zones, trail zones, and waterfront zones will be protected and preserved for public use and enjoyment. These zones will be kept in more or less natural condition and will be wide enough to preserve the forest environment along highways, roads, trails, streams, and lakeshores important for public recreation use (FSM 2323).

11. Wilderness, wild, and primitive areas will be protected and maintained in substantially primitive condition to accommodate public use. Existing primitive areas will be restudied and appropriate portions reclassified as wilderness or wild areas. Land-use studies will be made of other areas suitable for wilderness purposes, and those primarily valuable for such use will be so classified (FSM 2321).

12. General public recreation values, such as hunting, fishing, hiking, riding, and scenery, will be recognized in all resource management; and necessary steps will be taken to develop and enhance such recreation opportunities wherever it is in the public interest to do so (FSM 2355).

13. Preferential private recreation uses of national-forest lands, such as summer homes, may be permitted only where the lands are clearly not suitable or not needed for public use (FSM 2335).

14. In planning and developing recreation facilities, the Forest Service will make every effort to coordinate national-forest plans with the plans of other Federal and State agencies. National-forest developments should supplement those of other agencies to provide needed public recreation facilities. Special consideration will be given to developments along park approach roads (FSM 2340).

15. Recreation planning and development on national-forest lands around reclamation reservoirs will be the responsibility of the Forest Service.

PART III

DETAILS OF TASKS TO BE DONE

Task 1

PROJECTIONS OF RECREATION DEMAND

Projections of demand for outdoor recreation on the national forests,^{1/} in terms of total annual visits in 1966, 1976, and 2000, have been made for all States containing national-forest land. This State-by-State basis has been chosen because data on population, personal income, and other factors used in the projection methodology are not generally available for other geographic areas. The "visit" has been used as the unit of demand because the more reliable records of past recreation use of the national forests are in terms of number of visits. Also the "visit" is uniform on all national forests whereas "visitor-days" are dependent on converting factors that vary forest by forest.

For States containing more than one national forest, projected Statewide visits have been allocated to the two or more forests (or parts of forests) located therein. These same projected Statewide visits have also been allocated to specific use-class categories that will be discussed later.

Projections by States, allocated to forests (or parts of forests) therein, and to use-classes, have been made by the Washington Office. These projections will be reviewed by each regional office concerned, and figures mutually acceptable to the region and to the Washington office will be agreed upon.

Provisional projections, and allocations as noted above, were transmitted to regional offices prior to April 1, 1959. The purpose of these provisional projections and allocations is to provide a general goal for the field inventory of recreation areas and sites. Where large increases in recreational use of a national forest are indicated, the field inventory will delineate more of the lower-quality and less-accessible recreation areas and sites than would otherwise be included. It is intended that these provisional projections of recreation demand be liberal, thus avoiding need for additional fieldwork after final projections are developed.

After provisional projections and allocations are reviewed, modified, and are mutually acceptable to Washington office and regional offices, work on the final projections of demand will be started by the Washington office, with completion scheduled for January 1, 1960.

^{1/} In this work plan, the term "national forest" will be understood to include Bankhead-Jones Act "land utilization projects" expected to remain under Forest Service administration.

Factors Considered in Making Provisional Projections

Increase of demand for outdoor recreation on the national forests within each State is assumed to be related to four main factors: (1) increase in the number of persons who will be seeking recreation, (2) increase of per capita real personal income, (3) increase of per capita leisure time, and (4) increase of per capita travel.^{2/}

There are, of course, many other less tangible influences that induce people to seek outdoor recreation. Such recreation provides relaxation from the disciplines required in the performance of work; it satisfies the deep interest many people have in the beauties and mysteries of nature; it provides opportunity for the development of interesting hobbies -- such as amateur photography, skill with rifle and fishing rod, collection of botanical and mineral specimens, camp cookery, and others too numerous to list. Such influences, however, are not readily expressed by statistical measurements. The practicable approach is to project demand on the basis of those factors that are measurable.

The first step in making provisional recreation-demand projections has been the development of State-by-State projections of population, per capita real income, per capita leisure, and per capita travel.

Population Projections

Four series of projections of United States population (by 5-year intervals from 1960 to 1980) have recently been published by the Bureau of the Census.^{3/} Those projections, rounded to the nearest million persons (with interpolated figures for 1966 and 1976 indicated by parentheses) are as follows:

<u>Year</u>	<u>Series I</u>	<u>Series II</u>	<u>Series III</u>	<u>Series IV</u>
1960	181	180	180	179
1965	199	196	194	192
1966	(203)	(199)	(197)	(194)
1970	220	214	208	203
1975	244	235	226	216
1976	(249)	(240)	(229)	(219)
1980	273	260	245	231

^{2/} This assumption is deemed to be in accord with instructions set forth in Public Law 85-470, wherein the recently established National Outdoor Recreation Resources Review Commission is directed to determine the amount, kind, quality, and location of outdoor recreation resources and opportunities as will be required in the year 1976 and in the year 2000 -- in the light of information concerning trends in population, leisure, transportation, and other factors.

^{3/} Bureau of the Census, U. S. Department of Commerce, ILLUSTRATIVE PROJECTIONS OF THE POPULATION OF THE UNITED STATES, BY AGE AND SEX, 1960 to 1980, Current Population Reports, Population Estimates, Series P-25, No. 187, November 1958, Washington, D. C.

All four projections assume continuation of recent trends in declining mortality rates and of the recent level of net immigration.

Series I projections assume fertility rates about 10 percent above those of 1955-57. Commenting on this assumption, the Bureau of the Census said: "The fertility assumptions of Series I . . . represents a gross reproduction rate that has not been attained since the beginning of this century. This level is not expected to be retained over any length of time." In view of so positive a reservation, it appeared unwise to adopt Series I projections.

Series II projections assume that fertility rates of 1955-57 will continue until 1975-80. The possibility that these 1955-57 rates were still being influenced to some extent by families who had postponed having children during World War II, or even earlier, justifies some doubts about continuation of 1955-57 fertility rates until 1975-80.

Series III projections assume that 1955-57 fertility rates will decline to about the 1949-51 level by 1975-80.

Series IV projections assume that 1955-57 rates will decline to about the 1942-44 level by 1965-70 and continue at that level until 1975-80. But inasmuch as those 1942-44 rates represented early stages of recovery from the abnormally low rates of the 1930's any immediate reversion to such rates would appear to be doubtful.

On the basis of these considerations, the Census Bureau's Series III population projections have been adopted for purposes of the national-forest recreation resources review.

Extension of the Bureau's 1980 projections, using its methods and holding 1975-80 fertility-rate assumptions constant until 2000, gives the following United States population projections for the year 2000 -- with figures rounded to the nearest million persons.

<u>Year</u>	<u>Series I</u>	<u>Series II</u>	<u>Series III</u>	<u>Series IV</u>
2000	417	382	332	293

Applying the same reasoning in choosing from among these four extensions, Series III has been adopted.

To recapitulate, the United States population projections that have been adopted for purposes of recreation-demand projections are:

<u>Year</u>	<u>Million persons</u>
1966	197
1976	229
2000	332

Distribution of Projected U. S. Population to States

A four-series set of population projections by States to 1960, 1965, and 1970, was published by the Bureau of the Census in 1957.^{4/} While the sum of the Series III State-by-State projections in that 1957 publication was somewhat less than the more recent Series III projections for the United States as a whole, the difference is not large enough to invalidate distribution of the more recent United States' total according to the percentage distribution implicit in the 1957 State-by-State projections. Such a distribution has been made -- using the 1965 Series III State-by-State projections to distribute 1966 Series III United States' projections, and the 1970 Series III State-by-State projections to distribute 1976 Series III United States' projections.

Series III United States' projections extended to 2000 have been distributed to States on the basis of each States implied 1957-76 rate of increase extrapolated to the year 2000.

Per Capita Real Personal Income

Projections to 1966, 1976, and 2000 of total real personal income in 1957 dollars were developed for the United States as a whole. These projections were then distributed to States in accordance with State population projections -- with appropriate modifications to take account of the State-by-State trends in per capita real personal income.^{5/}

Methodology used in this connection involved basic projections of United States gross national product (GNP) in 1957 dollars to 1966, 1976, and 2000. The various factors used in these GNP projections are set forth in table 1.

Projected United States personal income in dollars at 1957 prices (\$458 billion in 1966, \$660 billion in 1976, and \$1,460 billion in 2000) are based on the 1946-57 average relationship of personal income to GNP. The projected increases of per capita real personal income amount to 15 percent for the period 1957-66, 42 percent for the period 1957-76, and 117 percent for the period 1957-2000.

Increase of Per Capita Leisure

The trend toward increased leisure becoming available to all segments of the population is well known. There is, however, a scarcity of quantitative information on how much leisure the people actually have, how it is distributed in time, and how it is used.

^{4/} Bureau of the Census, U.S. Department of Commerce, ILLUSTRATIVE PROJECTIONS OF THE POPULATION, BY STATES, 1960, 1965, and 1970, Current Population Reports, Population Estimates, Series P-25, No. 160, August 9, 1957.

^{5/} Estimates of real personal income per capita by States 1929-53 have been made by Hurwitz and Stallings of the Bureau of Labor Statistics, U.S. Dept. of Labor. See National Bureau of Economic Research, REGIONAL INCOME, Studies in Income and Wealth, Vol. 21, Princeton University Press, 1957, pages 195-270.

Table 1. - Factors affecting gross national product, 1957;
projections to 1966, 1976, and 2000

Item	1957 actual	1/ 1966	Projected 1966	Projected 1976	Projected 2000
Total population - million persons	171.2	196.5	229.4	332.1	
Total labor force - million persons	70.7	80.0	95.0	141.2	
Armed forces - million persons	2.8	3.0	3.0	3.5	
Civilian labor force - million persons	67.9	77.0	92.0	137.7	
Unemployed - million persons	2.9	3.1	3.7	5.5	
Employed civilian labor force - million persons	65.0	73.9	88.3	132.2	
Employment in private sector of the economy - million persons	57.6	66.5	79.5	119.0	
Yearlong average workweek - hours	40.0	37.0	35.0	30.0	
Average workweek - hours	2,080	1,924	1,820	1,560	
Hours of employment - million man-hours	119,808	127,946	144,690	185,640	
Product per man-hour - dollars @ 1957 prices	\$3.209	\$4.029	\$5.139	\$8.861	
Private gross national product - billion dollars @ 1957 prices	\$401.8	\$515.5	\$743.6	\$1,645.0	
Total gross national product - billion dollars @ 1957 prices	\$440.0	2/ \$575.0	2/ \$825.0	2/ \$1,830.0	
Personal income - billion dollars @ 1957 prices	\$348.0	3/ \$458.0	3/ \$660.0	3/ \$1,460.0	
Per capita personal income - dollars @ 1957 prices	\$2,027	\$2,329	\$2,878	\$4,397	

1/ Sources, U. S. Department of Commerce, STATISTICAL ABSTRACT OF THE UNITED STATES 1958, and SURVEY OF CURRENT BUSINESS, July and August 1958.

2/ Assuming that private gross national product will be 90 percent of total gross national product.

3/ Assuming continuation of the 1946-57 average relationship between gross national product and personal income.

The approach to this problem of measuring general trend in per capita leisure has been to consider the progressive decline in yearlong average hours of work per week. Such reduction has been from about 60 hours per week in 1900 to about 40 hours in 1957. There appears to be reasonable expectations that this yearlong average workweek will decline still further to about 35 hours by 1976 and to about 30 hours by the year 2000. Such reductions will probably be realized in a combination of ways -- shortening of the average workday, or average work week, and more general prevalence of annual or semiannual vacations with pay. A Department of Labor study covering virtually all collective bargaining agreements, affecting 1,000 or more employees each in 1957, indicated that 92 percent of such employees now have paid vacations -- and maximum vacations of three weeks or more are the rule rather than the exception.^{6/}

Assuming for the average employed person that about 14 hours per day are consumed in sleeping, eating, going to and from work, and other nonleisure activities, the increase of per capita leisure hours per year between 1900 and 1953 must have been about as shown in the fourth column of table 2. This indicates a threefold increase of leisure (from 520 hours in 1900 to 1,565 hours in 1953) during the past 50 years. Assuming that 1,570 hours per capita were available in 1957, the projections imply an increase to 1,726 hours in 1966, 1,830 hours in 1976, and 2,090 hours by 2000. In percentage terms the periodic increases would be:

	<u>Percent increase</u>
1957 to 1966	10
1957 to 1976	17
1957 to 2000	33

These figures, of course, are national averages and apply only to the employed labor force. Other factors contributing additional leisure for the whole population include the extension of the period in which young persons are in school and the increase in number of retired persons in relation to total population. Such considerations suggest that the estimates of increased per capita leisure for employed persons is the minimum that could reasonably be expected.

Lack of basic data makes it improbable that State-by-State estimates of the future increase in per capita leisure could readily have been developed. There are, undoubtedly, substantial differences among the States with regard to per capita leisure -- agricultural States certainly have a lower average than the highly industrialized States. However, it is

^{6/} Bureau of Labor Statistics, U.S. Department of Labor, PAID VACATION PROVISIONS IN MAJOR UNION CONTRACTS, 1957. Bulletin No. 1233, Government Printing Office, Washington, D. C., 1958.

Table 2. - Estimated average hours of work per week
and per year, specified years 1900-1953;
projections to 1965, 1975, and 2000

Column 1	Column 2	Column 3	Column 4	Column 5
Year	Hours of work per week <u>1/</u>	Hours of work per year <u>2/</u>	Hours of leisure per year <u>3/</u>	Index of leisure time 1900 = 100
1900	60.2	3,130	520	100
1910	55.1	2,865	785	151
1920	49.7	2,584	1,066	205
1930	45.9	2,387	1,263	243
1940	44.0	2,288	1,362	262
1941	44.4	2,309	1,341	258
1942	45.4	2,361	1,289	248
1943	47.6	2,475	1,175	226
1944	46.4	2,413	1,237	238
1945	44.5	2,314	1,336	257
1946	42.6	2,215	1,435	276
1947	41.8	2,174	1,476	284
1948	40.9	2,127	1,523	292
1949	40.3	2,096	1,554	298
1950	40.0	2,080	1,570	302
1951	40.5	2,106	1,544	297
1952	40.5	2,106	1,544	297
1953	40.1	2,085	1,565	301
		<u>Projections</u> <u>4/</u>		
1965	37.0	1,924	1,726	332
1975	35.0	1,820	1,830	352
2000	30.0	1,560	2,090	402

1/ Yearlong weighted average for all employment, agricultural and nonagricultural.

2/ Yearlong weekly average multiplied by 52 weeks.

3/ Assuming that an average of 14 hours per day are consumed in sleeping, eating, going to and from work, and other nonleisure activities.

4/ Forest Service assumptions.

Source: Dewhurst, Frederic J., and Associates, AMERICA'S NEEDS AND RESOURCES, A NEW SURVEY, New York, 1955, The Twentieth Century Fund, page 1,073.

probably reasonable to expect that the percentage increases of per capita leisure will not vary to any large extent from State to State.

Whether this assumption should be modified or not, will be considered more carefully in development of the final projections of recreation demand.

Per Capita Travel

One of the major reasons for the rapid increase of outdoor recreation activity during the past forty years is undoubtedly the great increase in general mobility of the population. All forms of transportation have contributed to this increase of mobility, but there appears to be no doubt that the family automobile has contributed far more than any other form of transport.

A Bureau of the Census survey covering 1957 travel -- trips of overnight duration, or to a destination at least 100 miles from home -- indicated that 87 percent of such trips and 82 percent of such trip-days were made by automobile. And of all such trips made for vacation and pleasure, 92 percent were by automobile.^{7/} Insofar as national-forest recreation areas are concerned, it is reasonable to believe that even a higher percentage of visitors came by automobile. It is equally reasonable to expect that increased mobility due to the automobile and to highway improvements and extensions will have more direct influence upon demand for national-forest outdoor recreation than will other types of transportation development.^{8/}

Information on the general trend of population mobility brought about by the automobile is available in the estimates prepared annually by the Bureau of Public Roads, U. S. Department of Commerce. These are estimates of passenger-vehicle miles of travel on all the non-urban highways of the United States for the period 1936-1956.^{9/} Estimates of this type by States for 1957 with projections to 1965 and 1975 are presently being developed by the Bureau in cooperation with State Highway Commissions. There is a possibility that these data will be available for use in the development of final projections of recreation demand.

But since these State-by-State projections of passenger vehicle-miles of travel on nonurban highways are not yet available, it has been necessary (in developing provisional projections of national-forest recreation demand) to utilize certain regional estimates of the 1955-1975

^{7/} Bureau of the Census, U.S. Department of Commerce, TRAVEL SURVEY 1957, Washington, D. C., 1958.

^{8/} It is, of course, conceivable that private aircraft will be an important means of recreation travel by the year 2000. The main effect of such development will be to increase the distance that people will be able to travel for week-end and for vacation recreation.

^{9/} Bureau of Public Roads, U.S. Department of Commerce, HIGHWAY STATISTICS--SUMMARY TO 1955, also HIGHWAY STATISTICS, 1956, Government Printing Office, Washington, D. C.

increase of vehicle-miles of travel, prepared by the Bureau of Public Roads. Those estimates, converted to an index of per capita vehicle-miles of travel (1955 = 100), are as shown in the second column of Table 3. By adjustment and interpolation, those estimates were used to arrive at estimates of the 1957-1966 and the 1957-1976 increases of per capita vehicle-miles of travel for specified groups of States. Extensions to the year 2000 were based on the 1955-1975 average annual rate of increase. In using these data, it had to be assumed that the rate of increase for a particular State will be the same as for that group of which it is a component.

Method Used in Developing Provisional Projections

Methodology used in making provisional projections involved the hypothesis that per capita recreation visits to the national forests will increase at a rate commensurate with the multiplicative effects of the projected rises in: (a) per capita real income, (b) per capita leisure, and (c) per capita travel. The estimating equation for 1966 per capita visits was as follows:

$$V_2 = V_1 \left(\frac{I_2}{I_1} \right) \left(\frac{L_2}{L_1} \right) \left(\frac{T_2}{T_1} \right)$$

in which:

V_1 = Per capita visits in the base year -- 1955-1957 average centered on 1956.

V_2 = Per capita visits in 1966

I_1 = Per capita real income in base year

I_2 = Projected per capita real income in 1966

L_1 = Per capita leisure in base year

L_2 = Projected per capita leisure in 1966

T_1 = Per capita travel in base year

T_2 = Projected per capita travel in 1966

Table 3. - Projection of per capita vehicle-miles of travel
in relation to 1957, by Regions

Column 1	Column 2	Column 3	Column 4	Column 5
Region	1955-75 ^{1/}	1957-66	1957-76	1957-2000
New England	1.277	1.116	1.261	1.692
Middle Atlantic	1.425	1.173	1.400	2.143
South Atlantic (North)	1.428	1.174	1.404	2.156
South Atlantic (South)	1.446	1.181	1.420	2.213
East North Central	1.293	1.122	1.276	1.737
East South Central	1.437	1.177	1.412	2.183
West North Central	1.392	1.161	1.370	2.038
West South Central	1.331	1.137	1.312	1.849
Mountain	1.315	1.131	1.296	1.802
Pacific	1.288	1.120	1.270	1.723

^{1/} Factors derived from data given on page 30 of "Guide for Forecasting Traffic on the Interstate System for Use in Preparing Cost Estimates." Department of Commerce, Bureau of Public Roads Circular to Division Engineers dated October 15, 1956.

<u>New England</u>		<u>East North Central</u>		<u>Mountain</u>	
Conn.	N. H.	Ill.	Ohio	Ariz.	Nev.
Maine	R. I.	Ind.	Wis.	Colo.	N. Mex.
Mass.	Vt.	Mich.		Ida.	Utah
				Mont.	Wyo.
<u>Middle Atlantic</u>		<u>East South Central</u>		<u>Pacific</u>	
New Jersey		Ala.	Miss.	Calif.	
New York		Ky.	Tenn.	Oreg.	
Penna.				Wash.	
<u>South Atlantic (N)</u>		<u>West North Central</u>			
Del.	W. Va.	Ia.	Nebr.		
Md.	D. C.	Kans.	N. Dak.		
Va.		Minn.	S. Dak.		
		Mo.			
<u>South Atlantic (S)</u>		<u>West South Central</u>			
Fla.	N. C.	Ark.	Okla.		
Ga.	S. C.	La.	Texas		

Projected per capita visits as indicated by this equation were multiplied by 1966 projected population to arrive at projected total visits. Projections for 1976 and 2000 were derived in the same way by substituting the appropriate projected values for I_2 , L_2 , and T_2 . Resulting 1976 and 2000 per capita visits were multiplied by the corresponding projected populations to arrive at projected total visits.

Overall results of applying this method State-by-State (with moderate upward adjustments of 1966 and 1976 projections to bring them into line with a smooth growth curve) are as shown in table 4 and in figure 1. The indicated increases of national-forest recreation visits are from 61 million in 1957 to 120 million in 1966, to 230 million in 1976, to 600 million by the year 2000.

As a check on the general reasonability of this method, it was used in a sample of 19 States to project 1946 visits to 1957 -- for purposes of comparing such projections with the available estimates of 1957 actual visits. In most instances, the method tended to underestimate 1957 visits -- but it came reasonably close when used to project 1946-1948 average visits (centered on 1947) to 1955-1957 average visits (centered on 1956). It was also realized that the 1946 to 1957 increase in recreation visits was probably at a faster rate than should be expected over a long period of time. The limited availability of new automobiles in 1946 probably resulted in fewer visits than would otherwise have been the case. It is also probable that new recreation facilities that were becoming available as the result of OPERATION OUTDOORS tended to stimulate abnormally large increases in number of recreation visits during the years 1955 through 1957. Such factors would account for a steeper upward trend than would occur under the basic assumptions used in making these projections of demand -- continuing high-level employment but no involvement in major wars.

Another check on the reasonability of these provisional projections is to be found in the following line of reasoning. Outdoor recreation seasons in the United States vary from place to place, but the overall average is probably about five months. If all people were ardent outdoor recreation enthusiasts, they might be expected to visit some non-urban recreation area every weekend during that five-month season -- or to make an equivalent number of visits spread over a longer period. On this expectation, about 20 visits per capita to all public and private nonurban recreation areas would be a fair estimate. Following our supposition one step further, the projected year 2000 population of 332 million might be expected to make about 6.6 billion visits to all nonurban recreation areas. Those 6.6 billion visits would appear to be somewhere near the top limit of total outdoor recreation demand that may reasonably be expected by 2000 -- assuming main influencing factors (income, leisure, and travel) increase according to trends indicated above.

Since most of the national forests are in the West -- not in close proximity to most of the largest concentrations of population -- it appears unlikely that they will be called upon to meet more than 10 percent of total demand. The projected 600 million visits to the national forests in year 2000 would be approximately 10 percent of total potential demand, estimated as above.

Table 4. - Recreation visits to the national forests of continental United States 1924-1957; provisional projections to 1966, 1976, and 2000

Year	Million visits	:	Year	Million visits	:	Year	Million visits
1924	4.7	:	1937	11.8	:	1950	27.4
1925	5.6	:	1938	14.5	:	1951	30.0
1926	6.0	:	1939	14.3	:	1952	33.0
1927	6.1	:	1940	16.2	:	1953	35.4
1928	6.6	:	1941	18.0	:	1954	40.3
1929	7.1	:	1942	10.4	:	1955	45.7
1930	6.9	:	1943	6.3	:	1956	52.6
1931	8.1	:	1944	7.2	:	1957	61.0
1932	7.9	:	1945	10.1	:	<u>Projections</u>	
1933	8.2	:	1946	18.2	:	1966	120.0
1934	8.6	:	1947	21.3	:	1976	230.0
1935	9.7	:	1948	24.0	:	2000	600.0
1936	10.8	:	1949	26.1	:		

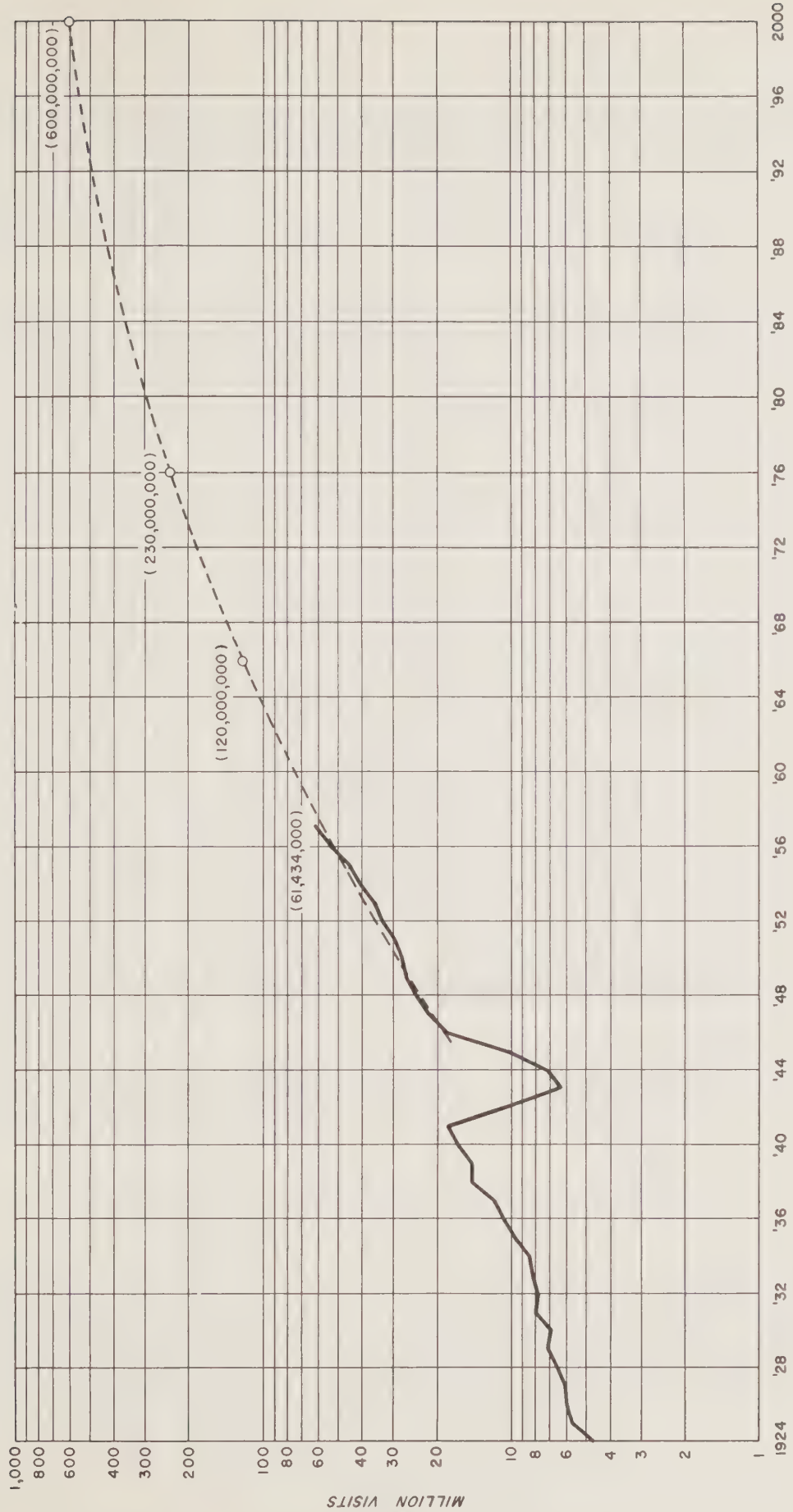


Figure 1 - Recreation Visits to National Forests of Continental United States, 1924-1957; Projection to 1966, 1976 and 2000.

In per capita terms, this projected 600 million visits to the national forests implies an increase from the 1957 level of 0.36 visits to 1.81 in the year 2000. In other words, visits per capita to the national forests in 2000 would be five times what they were in 1957.

Final Projections of Recreation Demand

Development of final projections of recreation visits to the national forests in 1966, 1976, and 2000 will involve coordination with overall demand projections that presumably will be made by the National Outdoor Recreation Resources Review Commission. This may require some modification of underlying assumptions regarding basic factors such as population, personal income, leisure, and travel.

In addition to necessary coordination, the final projections will involve whatever improvements in methodology as may be practicable. Multiple correlation technique is one approach that will be tested. There are probably others that should also be carefully considered.

The final projections are scheduled for completion by January 1, 1960. As these become available, they will be handled in the same way as described above for the provisional projections.

Allocation of Projected Statewide Visits to Individual National Forests

The provisional statewide projections of 1966, 1976, and 2000 recreation visits, by States containing national-forest lands, have been allocated to the one or more national forests (or parts of forests) located therein.

For States having more than one forest (or parts of forests) such allocations were based on a 1946-57 regression of visits to the individual forest on 1946-57 visits to all the national forests of the State.

In order to have smaller figures to work with, and also have an indication of the intensity of recreation use of each forest, annual visits -- both to all forests of the State and to the individual forests -- were expressed in visits per 1,000 acres of national-forest land actually owned by the Government.

The regression equation used was of the type:^{10/}

$$Y_c = a + bX$$

^{10/} The equation $(\log Y)_c = \log a + b \log X$ was recognized as being a theoretically sounder basis for allocation, but the simpler equation was used because the data available were too erratic to warrant using the more complicated equation. Also the time schedule for preparing the provisional projections would not permit spending the additional time required for use of logarithms.

This equation expresses the relationship of 1946-57 change in visits per 1,000 acres of land in the individual forest to change in visits per 1,000 acres of land in all the national forests of the State (table 5). Allocated 1966, 1976, and 2000 visits per 1,000 acres of land in the individual forest were then converted to total visits on the basis of the 1958 acreage of land in the forest (table 6 and figure 2).

In most instances, some adjustments were required to make the forest-by-forest allocations obtained by regression equation add up to the projected statewide totals for 1966, 1976, and 2000. This was done by application of the indicated adjustment factor.

In some instances, particularly where only a small part of a national forest lay within a State, the regression approach did not provide reliable results. In such cases, the allocation was made on a judgment basis.

The forest-by-forest allocations of 1966, 1976, and 2000 projected statewide recreation visits, arrived at statistically as above indicated, will be subject to modification to take account of changes that will alter the forest-by-forest distribution of visits within the State. Such alterations will obviously result from future developments of the State's highway system, from construction of additional reservoirs, and from localized differences in the rate of population growth. The impact of these and other factors on future statewide distribution of recreation visits to the national forests will be gauged best by judgment of those familiar with intrastate developmental trends.

Regional offices will make these modifications in consultation with Washington office personnel. This modified pattern of projected statewide recreation visits will be used as the indicator of variations in the expected pressure on the national-forest recreation resource. Where more intense pressures are anticipated, the field inventory will delineate more of the lower quality and less accessible sites than would otherwise be included.

During the course of the field inventory, each region should collect additional local information for use in modification of forest and use-class allocations of final projections of demand.

Allocation of Individual Forest Visits to "Area Class" and "Purpose-of-Visit Class"

Statewide projections of 1966, 1976, and 2000 recreation visits, allocated to individual national forests (or parts of forests) located therein, will be further allocated by the regional offices by "area class" and "purpose-of-visit class." Visits so allocated at the individual-forest level will then be converted to equivalent visitor-days of use.

Table 5. - Recreation visits per 1,000 acres of national-forest land in the State of Washington, 1946 and 1957; projections to 1966, 1976, and 2000

Forest	(Visits per 1,000 acres)						Regression equation
	1946	1957	Projections				
			1966	1976	2000		
Colville	25	167	394	777	2,259	$Y_C = 0.9751X - 84$	
Gifford Pinchot	61	400	613	1,193	3,438	$Y_C = 1.4768X - 111$	
Kaniksu	61	188	320	580	1,580	$Y_C = 0.6615X - 4$	
Mount Baker	68	165	311	552	1,483	$Y_C = 0.6126X + 11$	
Okanogan	12	45	108	203	569	$Y_C = 0.2408X - 10$	
Olympic	67	179	293	512	1,363	$Y_C = 0.5993X + 19$	
Snoqualmie	323	538	1,594	2,831	7,612	$Y_C = 3.1457X + 53$	
Umatilla	29	76	154	280	769	$Y_C = 0.3215X - 4$	
Wenatchee	167	298	479	777	1,929	$Y_C = 0.7576 + 108$	
Statewide average	94	232	490	883	2,403	-- --	

Table 6. - Recreation visits to national forests in the State of Washington,
1946 and 1957; projections to 1966, 1976, and 2000

Forest and item	1946	1957	(Thousand visits)					
			Projected 1966		Projected 1976		Projected 2000	
			Allocation	Adjusted	Allocation	Adjusted	Allocation	Adjusted
Colville	17	155	366	366	721	719	2,097	2,090
Gifford Pinchot	77	505	774	773	1,507	1,503	4,344	4,330
Kaniksu	31	54	92	92	167	167	454	452
Mount Baker	123	299	565	565	1,004	1,002	2,697	2,688
Okanogan	25	92	221	221	415	414	1,162	1,158
Olympic	42	111	182	182	319	318	847	844
Snoqualmie	386	649	1,925	1,924	3,419	3,410	9,194	9,163
Umatilla	9	24	48	48	88	88	241	240
Wenatchee	194	359	578	578	937	935	2,327	2,319
State Total	905	2,249	4,751	4,749	8,577	8,556	23,363	23,284
Adjustment factor	--	--	--	0.99958	--	0.99755	--	0.99662

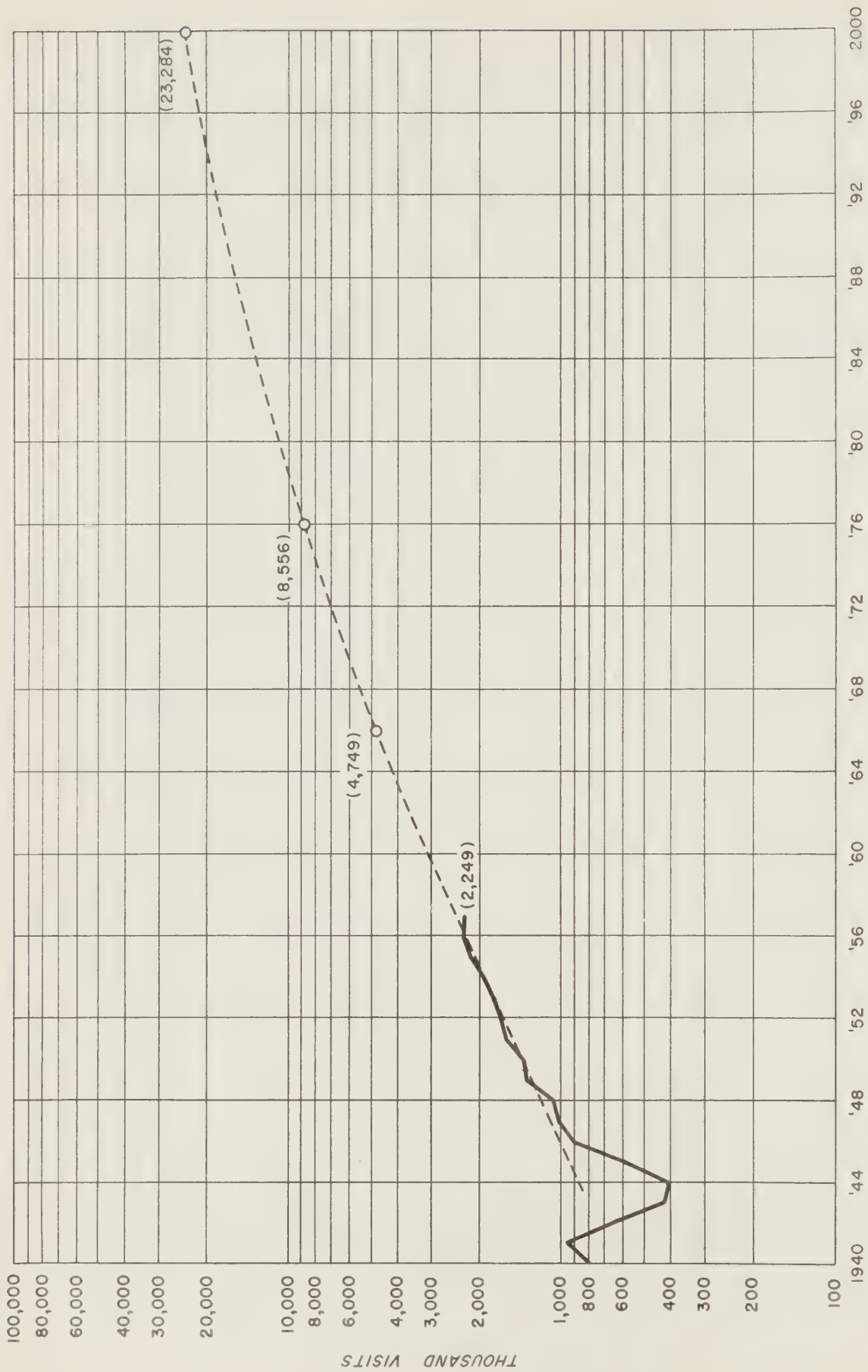


Figure 2 - Recreation Visits to the National Forests in the State of Washington, 1940-1957; Projection to 1966, 1976 and 2000.

In addition to the projections of national-forest visits for States containing national-forest land and the allocation of these visits to individual forests, the Washington office has allocated statewide projected visits to the eight "area classes" and the five "purpose-of-visit classes" of recreation use. The purpose of this latter allocation is to provide a State-by-State check on "area class" and "purpose-of-visit" allocations to be developed by the regional offices at the national-forest level. The allocation of statewide visits to use classes has been transmitted to the regions along with the allocation of statewide visits to individual forests. These use-class allocations were made by the same method as was used in allocating projected statewide total visits to individual forests.

The allocation by "area class" and "purpose-of-visit class" made by the Washington office for the State as a whole is intended to provide an indication of what the general Statewide trends for each use class have been, and to indicate the use pattern that would grow out of an extension of those trends.

If a regional office finds the summation of the forest-by-forest allocations by use class differing widely from the use-class allocations developed at the State level, a careful check will be made to determine: (1) whether the forest-by-forest allocation can be justified on the basis of past trends and future prospects, or (2) whether the forest-by-forest allocations should be adjusted to conform to the use-pattern allocations developed at the State level.

Area-Class Allocations

The regional offices will allocate each national forest's visits to the following eight categories: (1) campgrounds, (2) picnic areas, (3) winter-sports areas, (4) organization camps, (5) hotels and resorts, (6) recreation-residence areas, (7) wilderness areas, and (8) other forest areas. The sum of visits allocated to these eight area classes must equal the total visits to the national forest.

Procedures for making these within-forest allocations may vary considerably between regions. In some cases the basic data are exceedingly erratic. In others, changes in prospect will alter the pattern of recreation uses far out of line from past trends. For such reasons, strict reliance on statistical procedure or on a standard set of instructions is not advisable. Except for general guides determined mathematically, judgment will play the key role in making such allocations.

The procedure used for allocating statewide visits to individual forests, described on pages 36 and 37 above may be used to establish general guides for these area-class allocations. But in some regions the distribution of visits by use class during 1958 or an average of two or three recent years may be a more satisfactory guide to use in allocating projected visits. Within these general guides the allocations must finally be adjusted according to regional office judgment.

Washington office personnel will be available for consultation and to assist the regional offices in working out these allocations. Primary responsibility for making the allocations, however, is with the regional offices.

Further allocation of the forests visits by "area class" to ranger districts within the national forest will be made by the regional office or by the forest supervisor with regional office advice and assistance.

Purpose-Of-Visit Class Allocations

A further allocation of the forest's visits in 1966, 1976, and 2000 will be made by the regional offices for each of the five following purpose-of-visit categories: (1) hunting, (2) fishing, (3) boating, (4) swimming, and (5) hiking and riding. Visits so allocated by purpose-of-visit will not duplicate each other, but the sum of visits allocated to these five classes will add only to the number of visits made for these five specified purposes.

Procedures for making these purpose-of-visit allocations at the forest level will be the same as those described above for making area-class allocations at the forest level.

Further allocation of the forest's visits by "purpose-of-visit class" to ranger districts within the forest will be made by the regional office, or by the forest supervisor with regional office advice and assistance.

Conversion of Visits to Visitor-Days

Visits to each forest (allocated to eight area classes and the further allocations to five purpose-of-visit classes) will be converted to equivalent visitor-days of use (Form No. 1). This conversion will be made by multiplying number of visits in each class by the appropriate visits-to-visitor-days factor, as indicated by the forest's own recreation statistics. If there is an apparent tendency for average duration of visit to have lengthened or shortened during the 1946-57 period, this change should be reflected in the conversions of projected visits to visitor-days.

The necessary further conversion of projected visitor-days of use to acreage of various classes of recreation area and site is discussed in the next main section of this work plan.

State _____ National Forest _____ Ranger District _____

Projections of Recreation Demand

Item	Visits			Visitor-days		
	1966	1976	2000	1966	1976	2000
<u>Allocation by area class</u>						
1. Campground						
2. Picnic areas						
3. Winter sports						
4. Organization camps						
5. Hotels and resorts						
6. Recreation-residence:						
7. Wilderness						
8. Other						
<u>Partial allocation by purpose-of-visit class</u>						
1. Hunting						
2. Fishing						
3. Boating						
4. Swimming						
5. Hiking and riding						
Total: These five purpose-of-visit classes						

Summary of Responsibilities

Responsibility for the various operations outlined above are summarized as follows:

The Washington Office will:

1. Make projections to 1966, 1976, and 2000 of national-forest recreation visits on a statewide basis for all those States that contain national-forest land.
2. Make allocations of these statewide projected visits to the national forests (or parts of forests) located therein.
3. Make allocations of the statewide projected visits to eight "area class" and five "purpose-of-visit class" categories.
4. Transmit the projections and allocations indicated by items 1, 2, and 3 above to the regional offices. These will be accompanied by brief descriptions of the procedure used in arriving at the transmitted figures. Regional offices will be requested to review such figures in the light of all the regional and local information they have.
5. After review by the regional offices, Washington Office and regional office personnel will consult and agree upon the figures that are mutually acceptable as statewide projected visits and allocations thereof to individual national forests. The Washington Office will approve or disapprove any proposals for adjustment in statewide projected visits so that nationwide totals will be held within the framework of national projections of recreation visits.
6. Assist the regional offices in making allocations of projections at the national-forest level by "area classes" and "purpose-of-visit classes."

The Regional Offices will:

1. Review projections of statewide recreation visits and allocations of such visits provided by the Washington Office. This entails gathering local data pertinent to future recreation use and studying the projections in light of these data, and the judgment of persons acquainted with the State situation.
2. Submit to the Washington Office proposals for revision of projections and consult with Washington Office personnel to reach agreement on projections and allocations to be adopted.

3. Make allocation of agreed upon individual-forest visits by "area classes" and "purpose-of-visit classes."
4. Consult with the forest supervisors and reach agreement on these allocations. Adjust individual forest "area-class" and "purpose-of-visit class" allocations so that use allocations will conform with reasonable State totals by class.
5. Work with the forest supervisors in distributing individual-forest allocations by recreation-use classes to ranger districts. Adjust individual ranger district totals so that the use allocations will conform with agreed upon forest totals.

Task 2

DEVELOPMENT OF CONVERTING FACTORS

Projections of demands or needs for recreation will be expressed in terms of visits and visitor-days use. The physical resources will be expressed in acres. It is, therefore, necessary to convert demands in visitor-days use into acre requirements needed to accommodate the demand. We can then deal with like elements in comparing projected demands with the resources found available through the inventory.

A converting factor is a number representing the acreage of a recreation resource needed to satisfactorily accommodate one visitor-day use of that resource.

Converting Factor Guidelines and Principles

"The following objectives will be considered in developing factors for converting projected demands in terms of visitor-days use to acre requirements (See definition of 'safe capacity'):

1. Development Sites

Sufficient sites and facilities will be furnished to safely accommodate the anticipated volume of use on the average peak-season week-end day. It is recognized that overcrowding may occur on peak days, such as July 4 and Labor Day, but it is not considered necessary or economical to develop facilities which will be used only a few days each year.

2. Dispersed-Recreation Areas

Areas of these types will be classified and/or managed in sufficient size and number to meet public needs without undue damage to intangible values or the physical resource."

All converting factors will be regarded as approximations subject to revision, because not all of the facts needed to determine them are available and standards, acceptable now, will change with time.

The following information will generally be needed to derive a good converting factor:

1. The maximum number of people that can use a given site or area for recreation purposes without overcrowding it to the extent that the physical quality or aesthetic and other intangible values are impaired. This pertains to both the maximum number of visitors at one time and the maximum number of visitors during the normal season of use.

2. The length of the season of use.
3. The pattern of use during the season - that is, the distribution of the use by week days, week-end days, holidays, and during the day.
4. The degree of overuse which may be accepted during peak loads.

All of these factors will influence the capacity of a site or area to accommodate recreation use in a satisfactory manner. In no case will all of the factors be known completely, but for campgrounds and picnic sites we will have much better data than for wilderness areas.

It will be obvious that converting factors must be derived locally on the basis of local conditions. Season of use, pattern of use, climate, soil factors affecting the ability of a site to withstand use, and type of cover all vary by regions, forests, and even by districts.

Regions will derive converting factors based on the above principles and the guidelines that follow, so that there will be uniformity of procedure in deriving converting factors.

In all calculation of converting factors it is important to visualize the interrelationship of the effect of pattern of use, length of season, safe capacity, and other factors on the number of acres needed to safely and satisfactorily accommodate a given use on a given area. For example, one acre with three picnic units can accommodate 18 persons if each party has six people, but only six persons if each party is a twosome. If each unit were used by two separate parties each day - one at noon and one in the evening - the capacity would be doubled as to people. Also, if the use were uniform throughout the week and week end, a much greater capacity would result than if the units were unoccupied from Monday through Thursday and then used to capacity on the week end.

Length of season affects the total use and if the season is long there is much greater likelihood of exceeding maximum safe use per acre.

It should be noted that converting factors give the area actually needed for occupancy exclusive of unusable acres and buffer zones.

A permanent record will be made of the compilation used in developing the converting factors.

Converting Factors for Development Sites

Camp and Picnic Sites

Almost one-half of the total recreation use of the national forests is on campgrounds and picnic sites. The care, maintenance and construction of these sites require the major portion of our recreation money. Therefore, converting factors for these sites will be determined as carefully as possible.

The following guidelines will be considered in developing converting factors for camp and picnic grounds:

1. The Forest Service will provide adequate family units to properly accommodate the average week-end day use during the height of the season of use. No attempt will be made to provide adequate facilities for the peak use on holiday week ends.
2. Developments will be planned so that the forest environment is preserved, the site is protected from wearing out and the users are given reasonable privacy. The optimum spacing of family units is 100 feet. This spacing with allowance for set back from interior roads, toilets, etc., results in about 3 family units per acre.
3. Observation has indicated that the maximum safe use for a family unit should usually not exceed 425 visitor-days use per season in order that the site will not deteriorate. At the rate of 3 family units per acre this would be 1,275 visitor-days use per acre. This is based on 3 family units per acre, 5 man-days use per family unit per day, and a 100-day season which would equal 1500 visitor-days use. This was reduced by 15% as a safety factor resulting in 1275 visitor-days use per acre. This is the same basis used in Operation Outdoors, part 1, page 13.

To calculate converting factors for camp and picnic grounds obtain the following information from existing records or by making a study of several representative camp or picnic sites:

1. Total annual visits and visitor-days use.
2. Average length of use season.
3. Average week-end day use during the peak season of use (usually about 2/3 of the season of managed use).
4. Average visitor-days use per family unit on the average week-end day.
5. The average desirable number of family units per acre.

From the above information the converting factor can be obtained by determining the acres necessary to accommodate the average peak-season week-end day use and dividing this by total visitor-days use for the season.

For example: Assume that the site is properly developed and used as 3 family units per acre with 5 visitor-days use per family unit or 15 visitor-days use per acre per day. Then the converting factor for an area that has 72 visitor-days use on the average peak-season week end and a total of 4,756 visitor-days use for the season would be computed as follows:

$72 \div 15 = 4.8$ acres needed to accommodate peak-season week-end day use

$4.8 \div 4,756 = .0010$ acres per visitor-day use throughout the season: (Converting factor)

If it is not possible to ascertain the average peak-season week-end day use from available records use the following approximation:

$$\frac{\text{Annual use in visitor-days}}{\text{Length of season in days}} \times 1.5$$

In determining the capacity per acre, consider the pattern of use. If a picnic area habitually receives "dual use" -- that is, two parties use the same unit, one in the afternoon and one in the evening, a larger number of people will be using the unit. Normally, visits to picnic areas exceed visitor-days -- the national ratio is 1.66 to 1.00.

To determine the number of acres required to meet a demand of 80,000 visitor-days per season multiply the 80,000 times .001. This will give a result of 80 acres.

To determine if this is within the maximum use of 1,275 man-days per acre divide the 80,000 man-days use by 1,275. This gives the minimum acreage of 62. Since the 80 acres computed by the converting factor exceeds the 62 acres, the converting factor is well within the safe limit of use for the land.

Winter-Sports Sites

The capacity of winter-sports sites is more related to the acres of usable terrain than it is to total site area. Therefore, the pertinent figure for determining a converting factor for winter-sports sites is the area of usable terrain. Usable terrain will include cleared trails and open slopes which can accommodate skiing, sledding, platters, or other winter sports including areas of ice for ice skating.

To determine converting factors for winter-sports sites regions will select a winter-sports site or sites where use is somewhere near optimum for the usable terrain and determine the usable acres. This will then be related to the total annual visitor-days use for the site. The converting factor will then be computed as follows:

$$\text{Converting factor} = \frac{\text{Acres of Usable Terrain}}{\text{Total Visitor-Days Use}}$$

For example, if it is determined that a representative winter-sports site has 70 acres of usable terrain and a total annual use of 60,000 visitor-days the converting factor would be:

$$\text{Converting factor} = \frac{70}{60,000} = .0012$$

Note: Parking area may be a limiting factor at winter-sports sites. Unless the site has adequate area for the development of parking space, the capacity of the area must be reduced to that of the available parking. See examination of winter-sports sites.

All Other Development Sites

The converting factors for all other development sites, including organization-camp sites, commercial public service sites, summer home sites, boating sites, and swimming sites, will be determined on a comparative basis by each region. This will take into consideration the variable factors of season of use, pattern of use, etc., without having to appraise each of these factors separately.

Regions will select several established sites which are well planned and operate to a reasonable capacity of use. The acreage of the site and annual visitor-days-use figures will be obtained. From the average of these sites a converting factor will be determined as follows:

$$\text{Converting factor} = \frac{\text{Site Acreage}}{\text{Total annual visitor-days use}}$$

For example, if it is determined that the average acreage of representative commercial public service sites is 6 acres and the average total visitor-days use is 9,000 visitor days, the converting factor would be:

$$\text{Converting factor } \frac{6}{9000} = .0007$$

The same procedure will be followed for organization sites, summer-home sites, swimming sites, and boating sites.

Observation Sites

There will be no projected recreation demands for observation sites. Consequently, there will be no need for a converting factor to relate demands in terms of acres of resource to meet the demands. It will, therefore, not be necessary to determine converting factors for observation sites.

Sample Converting Factors for Recreation Sites

Based on Forest Service figures of use and acreage, the following converting factors appear reasonable and can be used as a guide and to check locally determined factors:

Campgrounds	.0011
Picnic Sites	.0011
Swimming Sites	.0032
Organization Camps	.0030

Winter-Sports Sites	.0193 .0019
Hotels and Resorts	.0013
Summer Homes	.0029

Converting Factors for Dispersed-Recreation Areas

Because of the wide variations of cover and topography between areas, which influence the dispersion of people within the areas, converting factors must be developed by persons thoroughly familiar with a particular area and its use. Each region shall give careful thought to the following principles and develop the best possible basis for determining the acres needed to accommodate the demand.

Wilderness Type Areas

There are some guidelines which will assist in determining the capacity of wilderness-type areas:

1. Determine the present visitor-days use if it is an existing area. On a judgment comparison basis, estimate how much use the area could safely accommodate.
2. For potential areas make the best possible comparison with the capacity determined for nearby existing areas.
3. Capacity is limited in areas having vast expanse of rocky peaks or cliffs which prevent access trails or cross-country travel by the average traveler. On the other hand areas with more accessible terrain will disperse more people on a per-acre basis without damage to the resource or without crowding.
4. The grazing capacity at camping locations must be considered in determining the capacity of use by those traveling with pack horses. The use of an area, however, is not limited to persons with horses as many visits are or will be by back-pack. The capacity of back-pack use will usually be limited by distance and available camp locations.

In determining the capacity for wilderness-type areas we must consider that wilderness experience should provide isolation from the masses of civilization. Concentration of camps at the available camping spots would tend to detract from the wilderness experience.

A person well acquainted with a wilderness area should visualize how many people could be in that area at one time without destroying the wilderness feeling; that is, without running into each other too often along the trails or camping too close together. In making this estimate, it should be remembered that the distribution of people in a wilderness area, and hence the capacity of the area, is affected by climate, topography, trails, outstanding scenic places, good campsites, horse feed, hunting and fishing opportunities, etc.

In some areas the number of acceptable campsites would be a limiting factor while in others it would be the trail system.

Campsites, horse feed, and water cannot easily be increased, but additional trails can usually be constructed as needed to increase access to certain places and to provide alternate routes of travel.

In figuring the theoretical and practical capacity of areas it should be assumed that all trails needed and desirable in the area will be constructed.

The theoretical wilderness capacity of an area would be the number of people who could be dispersed in the area at one time -- without destroying the wilderness -- multiplied by the length of the season of use.

Individual wilderness areas have greatly different capacities per acre. Some of our areas, such as the Flat Tops, Boundary Waters Canoe Area, Gila, Superstition, Three Sisters, and Selway-Bitterroot, have topography which will permit and encourage wide dispersion of wilderness travelers. In other areas, such as Cloud Peak, Mt. Dana-Minarets, Beartooth, Mt. Jefferson, Sawtooth, and South Absaroka, travelers will tend to or be forced to concentrate along certain routes and at certain camp spots, while relatively rough, inaccessible portions of the wilderness will receive very little use.

The occurrence of good campsites, horse feed, water, and points of special scenic interest will affect the dispersion of wilderness travelers. People will naturally travel to good campsites and use scenic routes more often than less attractive trails. The pattern of use during the season will also vary greatly. In some areas the visits will be mostly in the summer time and there will be concentration near good fishing streams or lakes, while in other areas hunting use in the fall will be a large factor. In some areas the climate and the prevalence of black flies and other annoying insects during certain portions of the season will affect the use pattern.

Present use per acre of our areas varies greatly. For example, the High Sierra area presently receives about one man-day of use per acre per season. The Boundary Waters Canoe Area receives about one man-day of use per two acres per season. The High Uintas primitive area receives one man-day of use per season for each 2.6 acres. We need to know whether an area such as the High Sierra or High Uintas is considered to be overcrowded and, if so, to what degree. The national average is 1,650,000 man-days on 14,000,000 acres, or one visitor-day of use per season for each 8-1/2 acres.

Expressed another way this would mean that for each man-day of use distributed throughout the 100-day season there would be available at any one time an average of 850 acres of wilderness.

All of these factors discussed, and others, will affect the capacity of a wilderness area. Persons familiar with an area and with the habits of

wilderness travelers will have to make important judgment decisions in arriving at the theoretical and practical capacity of wilderness areas.

The practical capacity of an area would be something less than the theoretical capacity, depending upon all the factors which affect distribution of people geographically within the area and during the season of use. Careful analysis of the pattern of use is necessary to determine the relationship between theoretical capacity and practical capacity.

A general converting factor of 3.0 for wilderness areas is a reasonable guide for checking locally determined converting factors. It is less wilderness per visitor-day than the national average and more than areas of heavier use, such as the Boundary Waters Canoe Area and the High Uintas.

Unusual Interest Type Areas

Following are some factors to be considered in determining the capacity of Virgin, Scenic, Geological, Archeological, and Historical areas:

1. Comparison with use on other such areas.
2. The size of the area.
3. The kind of access possible or desired within the area.
4. The extent of the features of interest within the area.
5. The extent to which visitors may be dispersed within the area.
6. The particular kind of recreation values within the area and their tolerance to human use.

Zones

All zones and certain scenic areas are not intended for improved occupancy but are primarily for viewing. Their capacity, therefore, is dependent upon the improvement site or feature to which they are adjacent. The capacity of a roadside zone is the capacity of the road to carry traffic. The capacity of a scenic waterfall is the number of people who can view it from one or more overlooks.

Service policy prescribes the establishment of roadside zones, and appropriate zones will be established as needed by the programmed road system.

Scenic overlooks should be planned at convenient places when the view justifies the expense. It is hardly possible to prescribe detailed guidelines.

Converting Factors for Hunting Areas

Hunting area converting factors are needed so that we can take the projected hunting demands for any given area (expressed in hunter-days) and convert these demands to acres. A comparison of acreage representing projected demand, with acres available as revealed by the inventory, will indicate whether or not the demand can be satisfactorily accommodated.

Used in this manner a converting factor is actually an expression of the carrying capacity of a definite area of land for a particular recreation use or activity -- in this case hunting. As such, it must be regarded as an approximation subject to revision. The carrying capacity of hunting areas is influenced by user impact on the physical and biotic resources and by the effect of use on the intangible values produced. A deterioration in either the physical and biotic resources or the derived intangible values, or both, may provide the thresholds beyond which hunting days per acre will not, or cannot, be allowed to increase. We do not know just what these thresholds may be. Some of our present higher hunting-use figures are the best indicators of what future hunters may be content with and of what degree of use the resource may safely accommodate. For purposes of this review we will use existing hunting statistics for the State of Michigan as a guide to develop converting factors for each hunting area. The converting factor will be the number of acres needed to satisfactorily accommodate one man-day of hunting per season. Michigan has been selected because the necessary data on a state-wide basis are available and because hunting pressure is heavy. We know that these present hunting conditions are currently accepted or tolerated. Presumably they will continue to be accepted and similar conditions will likewise be accepted in the future in States where acreage per hunter-day is now greater with accompanying greater hunter success. From the data on hunting-area acreages and hunter-day use in the table of Hunting Data for Michigan, we arrive at the following converting factor guides by dividing acres by hunter-days:

Big Game (deer)

$$\frac{19,665,280 \text{ acres}}{2,593,680 \text{ hunter-days}} = 7.6 \text{ acres for every man-day of deer hunting}$$

OR

.13 man-days of deer hunting per acre

Small Game (pheasants, ruffed grouse, woodcock, cottontail rabbits, snowshoe hares, squirrels, raccoon)

$$\frac{36,787,200 \text{ acres}}{7,833,150 \text{ hunter days}} = 4.7 \text{ acres for every man-day of small-game hunting}$$

OR

.21 man-days of small-game hunting per acre

Waterfowl (ducks, geese, coot)

$$\frac{3,323,760 \text{ acres}}{992,340 \text{ hunter-days}} = 2.3 \text{ for every man-day of waterfowl hunting}$$

OR

.43 man-days of waterfowl hunting per acre

These examples can be taken as actual converting factors but will be more valuable as guides in determining local converting factors.

The converting factor guide for big-game areas is: 7.6 acres per hunter-day where the expected hunter success may be as low or lower than 18 percent.

The converting factor guide for small game area is: 4.7 acres per hunter-day where the expected hunter kill may be 7.8 pieces of game per hunter per season, or less.

The converting factor guide for waterfowl areas is: 2.3 acres per hunter-day where the expected kill may be about 4.4 birds per hunter per season.

Combined Hunting

Due to the fact that projections for hunting use have not been broken down into the various types of hunting activities, it is necessary to determine a general hunting conversion factor. This is then entered in column 2, table A (form 3) and table B (form 4) of the appendix.

Following the same procedure, we find there is a total of 58,776,240 resource acres providing a combination of big game, small game, and waterfowl hunting opportunities. Some of these, perhaps most of them, may have overlapping uses as regards both time and place. What we are looking for is the total multiple-recreation (hunting) opportunities expressed in terms of acres. The sum of these is, of course, greater than the total of actual land acres involved. The total hunter days is 11,419,170, therefore:

$$\frac{58,776,240 \text{ acres}}{11,419,170 \text{ hunter-days}} = 5.1 \text{ acres for every man-day of combined hunting,}$$

OR

.19 man-days of hunting per acre

The converting factors are expressions of acres per man-day of hunting per season. Because of this, they may be misleading and give the impression of crowding. The 7.6-acre big-game converting factor guide illustrated by Michigan, when expressed in terms of space per hunter, gives a different perspective. If all big-game hunters were in the field the first day and were evenly dispersed, each hunter would have close to fifty acres for that one day of hunting. Over a 10-day season every hunter could expect to have an average of 76 acres each for a day of hunting.

HUNTING DATA FOR MICHIGAN*

1956-57 Season

Total Acreage in State of Michigan		:	:	:	Hunter success
		:	Hunter-days	:	per season or
		:	per season	:	av. no. taken
<hr/>					
1. Big-game hunting areas		:		:	
(Deer hunting areas)	19,665,280	:	2,593,680	:	18% regular and
		:		:	special seasons
2. Small-game hunting areas	36,787,200	:	7,833,150	:	7.8 pieces of game
		:		:	per hunter
3. Waterfowl areas	** 2,323,760	:	992,340	:	4.4 per hunter
		:		:	
		:		:	
<hr/>					

* Information provided by the State of Michigan Department of Conservation.

** Wet lands of high-to-moderate value for waterfowl. Sub-marginal acreage not included.

The hunter success or kill is given only as an indicator of success that might be expected under comparable conditions. Hunters will undoubtedly hunt with less incentive in the way of kill returns. In Michigan, on the average, a hunter can expect to get a deer only once every five years. Many go much longer without killing a deer yet still find incentive to hunt. In studies conducted in Montana, it has been found that a rather small percentage of the waterfowl hunters kill a high percentage of the geese harvested each season.

The following example shows how to utilize the converting factor guides. The projected demand for big-game hunting on a given ranger district is 5,000 hunter-days by 1976. Forty thousand acres of big-game hunting area has been inventoried and evaluated.

The demand in hunter-days multiplied by the converting factor or converting factor guide (7.6), as the case may be, gives the required acreage needed.

$$5,000 \times 7.6 = 38,000 \text{ acres}$$

Thirty-eight thousand (38,000) acres of big-game hunting area is needed to supply the 1976 demand. Forty thousand (40,000) acres have been inventoried and evaluated and thus will be sufficient to satisfy the demand.

If an analysis of local conditions indicates that 10 acres of big-game area will be needed to adequately take care of one man-day of hunting per season or that 6 acres will suffice, then those figures should be used as the local converting factor. Select high use figures that are still within the present capacity of the resource. This is important because the converting factor must reflect the potential for the future. If high use

figures do not exist, as in some areas of western States, then make use of high figures obtained elsewhere from generally comparable areas. As previously mentioned, the length of season must be given careful consideration. More acreage may be required to accommodate comparable hunting pressures where seasons are short.

In evaluating the quality of each area, the density of the game population, the habitat requirements, condition and trend, as well as management data, research findings and administrative practices are taken into account. These, as well as other types of data must be weighed when developing local converting factors. This work should be done in close cooperation with personnel of State Fish and Game Departments and the U. S. Fish and Wildlife Service. All will have statistics and research findings (published and unpublished) that will be of help.

Converting Factors for Fishing Waters

Fishing water converting factors can be derived in a manner similar to that for hunting areas. Two factors must be known -- the acreage of the lake or stream, and the fishing pressure on these waters in terms of fisherman-days per season. The converting factor is obtained by dividing acres of surface water by fisherman-days per season.

For example:

A lake of 435 acres \div 8,190 fisherman-days = .053 acres of water per
fisherman-day per season

To change stream miles to acres, multiply miles in length times eight times average width in chains.

For example:

98 stream miles X 8 X 4.5 = 3,528 acres

Then 3,528 acres \div 22,660 fisherman days = a converting factor of .155
acres per fisherman-day

The fishing data, page 80, was largely taken or computed from "Creel Census and Expenditure Studies, Missouri River Basin, 1947-52;" Special Scientific Report -- Fisheries No. 141, U. S. Department of the Interior, Fish and Wildlife Service. It has been prepared as a guide for developing local converting factors and is typical of the type of data needed.

Converting Factor Guides

Column 8 of the Fishing Data table gives the converting factor guides or the acreage per fisherman-day per season for the fishing waters listed. In the case of these examples, the figures in columns 7 and 8 represent actual seasonal fishing pressures that are acceptable and will in all probability be accepted in the future. Greater fishing pressures now

FISHING DATA

(1)	(2)	(3)	(4)	(5)	(6)	(7)*	(8)*	(9)
Name of Fishing Waters	Location	Stream Miles	Stream Width (Chains)	Surface Acres	Total Fisherman Days	Fisherman Days Per Acre	Acre Per Fisherman Day	Fishing Success Fish Per Hour of Effort
COLD WATER LAKES								
Diversion Reservoir	Montana	:	:	100	2,328	23.3	.043	0.33
Wood Lake	Montana	:	:	20	385	19.3	.052	0.26
Deerfield Reservoir	South Dakota	:	:	435	8,190	18.8	.053	0.48
Pathfinder Reservoir	Wyoming	:	:	22,600	7,850	0.35	2.88	0.15
COLD WATER STREAM								
West Gallatin River	Montana	28	1.9	425	13,100	30.8	.032	0.51
North Platte River	Wyoming	5.5	1.5	84	6,847	81.5	.012	0.57
Madison	Montana	98	4.5	3,528	22,660	6.4	.155	0.53
WARM WATER LAKES								
16 Alabama Lakes *	Alabama	:	:	1,219	155,631	127.0	.0078	4.1 (fish per trip)
Lake Maloney	Nebraska	:	:	1,670	18,000	10.8	.093	0.88
Cottonwood Lake	South Dakota	:	:	1,450	16,495	11.4	.088	1.65
Harry Strunk Lake	Nebraska	:	:	1,768	55,000	31.1	.032	0.51
WARM WATER STREAMS								
Missouri River	Montana	12	7.6	730	9,600	13.2	.076	0.75
Republican River	Nebr. & Kan.	43	6.1	2,098	17,426	8.3	.120	0.09

* Obtained from publications State of Alabama Department of Conservation. Fisherman's day - as used in this publication, is defined as one day of fishing by an individual angler, whether or not he is actually involved in the fishing.

exist and seem acceptable to the fishermen. Present generations tend to accept conditions that would have been intolerable to past ones. The heaviest fishing pressures among the examples given are:

	<u>Cold Water</u>	<u>Warm Water</u>
Lakes and Reservoirs	.043	.0078
Streams	.012	.076

Locally, the heaviest use figures should be utilized in developing converting factors.

The converting factor guides or local converting factors are used in the following manner.

Example: The projected demand for a particular ranger district is 10,000 fisherman days by 1976. To estimate whether the cold lake or reservoir fishing waters inventoried will take care of this demand, multiply the projected demand (10,000) by the converting factor guide (.043). If data on local fishing conditions reveal a more satisfactory converting factor, use it instead of (.043).

$10,000 \times .043 = 430$ acres (needed to take care of the projected demand.)

Where no projected demand has been made but it is desirable to determine the fishing capacity of an inventoried lake of known acreage, either divide acres of lake (430) by the local converting factor or converting factor guide (.043).

$430 \div (.043) = 10,000$ fisherman-days capacity, or:

Multiply the lake acreage by fisherman-days per acre. (See column 7, Fishing Data Table)

The number of fish per hour of effort (column 9, Fishing Data Table) is a measure of the fishing success at a known fishing pressure or intensity. It is enlightening and should be considered, but is not necessary to the determination of the converting factors. When very low, it should indicate that the fishing pressure under existing conditions is not likely to increase.

A fishing-water converting factor must be entered in column 2, table A (form 3) and table B (form 4) of the appendix. In many cases one type of water will predominate, and this converting factor can be worked out for either cold-water lakes or streams or for warm-water lakes or streams. In other instances it will represent a combination of water and fishing conditions. In the latter case the amount of fishing pressure should be reflected by the type of water. Generally speaking, warm waters can accommodate considerably more fishing pressure than cold waters. Thus the heavier used cold-and warm-water fishing acreage divided by the total fisherman-day use on these waters should provide a general fishing converting factor that can be entered on forms 3 and 4.

The quality rating in the field inventory form takes into consideration such factors as water condition, watershed management, seasons, research data, fishery management information, etc. These factors and additional data should be weighed when working out local converting factors. They may indicate a downward trend due to existing uses on the watersheds or a future increase in fishing capacity resulting from more research and improved management.

Converting Factors for Boating Waters

The converting factor for boating waters will have to be determined by making comparisons with known boating use on a local or regional basis. Obtain the total boating visitor-days use during the season on boating waters that are used to about maximum safe capacity on the average peak-season week-end day. Compute the acreage of the boating waters and determine the converting factor as follows:

$$\frac{\text{Acres in boating waters}}{\text{Total boating-days use during season}} = \text{Fast or running water converting factor}$$

$$\frac{\text{Acres in boating waters}}{\text{Total boating-days use during season}} = \text{Still-water converting factor}$$

Where either fast or still-water boating areas provide most of the boating resource acreage, use the appropriate converting factor and enter in column 2, table A (form 3) and table B (form 4). Where there is considerable acreage in both, work out separate converting factors and multiply each converting factor by the percentage of acreage involved. Then add to get a weighted boating converting factor.

Example:

	<u>Acres</u>	<u>Boating-Days</u>	<u>Converting Factor</u>
Fast Water	100	100	1.0
Still Water	<u>300</u>	600	.5
	400		

$$1 \times .25 = .25$$

$$.5 \times .75 = \underline{.375}$$

$$.625 = \text{weighted boating converting factor}$$

Converting Factors for Mountain-Climbing Areas

There will be no projected demands for mountain climbing, so converting factors will not be necessary.

Converting Factors for Hiking and Riding Areas

The converting factor for hiking and riding areas will also have to be determined by making comparisons with known hiking and riding use on a local or regional basis. Obtain the total hiking and riding days use during

the season on some hiking and riding areas that are used to about optimum or maximum capacity on the average peak-season week-end day. Compute the acreage in the hiking and riding area and determine the converting factor as follows:

$$\text{Converting factor} = \frac{\text{Acres in hiking and riding area}}{\text{Total hiking and riding-days use during season}}$$

Task 3

THE INVENTORY

The purpose of the inventory is to determine the amount, kind, quality, and location of recreation resources on lands administered by the Forest Service and waters on or flowing through these lands. The inventory will consist of the selection, examination, quality evaluation, and compilation of data on the recreation resources.

Sites and areas suitable for camping, picnicking, skiing, swimming, hunting, boating, fishing, etc. will be inventoried if they are available for recreation use and to the extent necessary to select the best quality available lands in quantity sufficient to meet the projected demands by 2000.

All areas which seem to meet the minimum requirements for wilderness or unusual interest classification will be inventoried and evaluated regardless of demand even though they may not be available from the standpoint of multiple-use management considerations.

General Instructions

The Ranger District or LU project will be the basic inventory unit. Forms are so designed and data will be recorded so that information can be summarized separately for inventory units, national forests, States, and regions. Field inventory forms have been designed for recording by counties. This will allow for summary by counties if this should be necessary within a State for local use. The NF-ORRR, however, will not be summarized separately by counties.

Only lands administered by the Forest Service will be inventoried in the NF-ORRR. There are, however, in some locations within the national forests lands of other ownership which are essential to development and use of recreation resources on national-forest lands. For example, a winter-sports site, resort site, or a reservoir area may require both national-forest lands and lands of other ownership for optimum development of recreation potential. Where this situation occurs on either existing or potential sites, only the national-forest lands will be inventoried, but the acreage of the lands of other ownership necessary for joint development will be listed on site inventory forms and reported separately on Recreation Plan Compilation Sheets No. 1 (form 12) and No. 2 (form 13) and table G.

Forests and regions will consider all lands of other ownership within or adjacent to national-forest boundaries and report narratively on the relationship of such lands to the recreational development and use of national-forest lands.

If the ORRRC should request the Forest Service to make an inventory of non-national-forest resources inside or adjacent to national-forest boundaries, supplementary instructions will be issued.

The inventory will include all mining claims except those which it is reasonable to expect will be patented in the next 5 years, or on which the United States does not have or expect to have surface rights under section 4 of P.L. 167 of 1955. If important recreation resources are inventoried as lands known to be on mining claims which are probably valid, a notation should be made on the inventory form.

Offered lands in the process of exchange will be inventoried and selected lands will not.

The availability of experimental-forest lands for inventory will be decided for each experimental forest by the regional forester and station director.

Inventory Procedure

The inventory procedure is concerned with the actual gathering of the pertinent data to be included in the inventory. It will involve: (1) assembling of all existing related information; (2) a preliminary determination of the kind and amount of recreation resources needed to meet the projected demands; (3) selection of lands for examination; (4) a comparison and balancing of supply and demand between inventory units; (5) examination of lands; (6) evaluation of quality of recreation lands; (7) compilation of inventory data; (8) segregation of sites and areas of unique or unusual recreation opportunity.

Assemble Pertinent Related Information

One of the first jobs in making the inventory will be the gathering of all pertinent related information which will be needed in selecting lands to be examined. The same information will be needed in making the field examination. This information will be shown on a map for each unit. The best available maps will be used and the scale should not be less than 2" = 1 mile. Planimetric base maps on 2" = 1 mile scale are recommended. The following information will be shown on an inventory unit map: (See map legend, appendix pages 2, 3, and 4.)

1. The existing transportation system and planned transportation system for years 1976 and 2000. This will be needed to determine accessibility of lands by these dates. Present road system planning has usually not fully considered recreation needs to the extent anticipated by the Review. Regions should, therefore, coordinate transportation planning to meet the needs of recreation.
2. The location of existing and proposed airports and heliports which would affect recreation land accessibility. This should include only such locations as can be reasonably expected to be developed. For proposed airports and heliports show reasonable date of development 1976 or 2000.

3. Natural lakes and impoundments as well as proposed impoundments will need to be mapped and for the latter the probable development dates will be determined. This will be basic information for knowing when certain sites will have recreation values.
4. Land status if available on base maps. If not reference will be made to best status plats available.
5. The improved development sites. This should be available now in the forest recreation plan.
6. Experimental Forests - If recreation use will be limited indicate limitation.
7. Lands of limited use.
 - a. Recreation policy or other considerations will usually prevent the establishment of development sites on the following lands:
 - (1) Wilderness and Wild Areas (except certain and essential facilities)
 - (2) Virgin Areas (except certain and essential facilities)
 - (3) Roadside Zones (except under special authorization)
 - (4) Trailside Zones (except under special authorization)
 - (5) Buffer Zones
 - (6) Observation Sites
 - (7) Within impoundments proposed for early development
 - (8) Lands where multiple-use management direction clearly indicates development site use would not be in the public interest.
 - (9) Natural Areas
 - b. Recreation policy or other considerations will usually prevent the establishment of all development sites except campgrounds or picnic grounds on the following lands:
 - (1) Scenic Areas
 - (2) Geological Areas
 - (3) Archeological Areas

- (4) Historical Areas
 - (5) Roadless Areas
 - (6) Botanical Areas
 - (7) Lands where multiple-use management direction clearly indicates that development sites other than campgrounds and picnic grounds would not be in the public interest.
- c. Legal limitations, agreements or proclamations may limit the Forest Service jurisdiction or control of some lands. In some cases there may be limitations; in others they may offer opportunities which would enhance recreation. In mapping the following lands the limitations or opportunities will be indicated:
- (1) Federal Game Refuges
 - (2) Wildlife Management Areas
 - (3) Reclamation Withdrawals
 - (4) Water Power Withdrawals
 - (5) Municipal Watersheds to which Cooperative Agreements or Federal Laws Specifically Apply
 - (6) Military Withdrawals
 - (7) Lands having outstanding mineral rights
8. Lands not suitable for certain uses. Examples of lands not suitable for development sites are:
- a. Inaccessible in the year 2000
 - b. Where fire hazard would endanger users or create unreasonable hazard to the forest
 - c. Where flash floods would endanger life or recreation developments
 - d. Lands generally unattractive from a recreation standpoint
9. Lands to be excluded as not available. There will be very little land where all forms of recreation use will be excluded. The reasons for such exclusion might be:
- a. The lands are needed for administrative purposes which would exclude all kinds of recreation use.

- b. Multiple-use management decision clearly indicates that any kind of recreation use would not be in the public interest.

10. Any other information pertinent to recreation use.

Make Preliminary Determination of Resources Needed

At this point in the inventory and before making a selection of the lands to be examined we need to know about how much recreation resources will be needed to meet the projected demands for the years 1976 and 2000. Such information will indicate how intensive the examination of land will need to be. It will also be a guide in determining the minimum quality of land which must be accepted to meet future recreation demands.

Provisional projections of recreation demand will be available on form 1 "PROVISIONAL PROJECTIONS OF RECREATION DEMAND." These projections will be transferred to table A, (form 3) "ADJUSTMENT AND CONVERSION OF PROVISIONAL PROJECTIONS."

The purpose of table A is to tabulate data on projections of recreation visitor-days and provide for preliminary adjustments based on the supervisor's estimates of lands available for the different types of recreation use.

Column 1, table A is derived from the Provisional Projections of Recreation Demand, form 1, which has been prepared for forest and ranger district according to instructions in task 1.

It must be remembered that Forest Service recreation use figures, on which these provision projections of future demand are based, include some duplications and hence so do the projections. Also, the purpose-of-visit classes 1-5, form 1, are a part of the forest total.

Visitors to the national forests are often an impact on more than one recreation site or area during the day and, if so, may be counted more than once. For example, a camping party occupying a unit in a campground could spend the morning at a nearby fishing stream, the afternoon swimming at a Forest Service beach and the evening boating. That party might be recorded as 1/2 day fishing (item 8 Recreation Visits Report form 446-a); 1/2 day swimming (item 2 Recreation Visits Report form 446-a); 1/2 day boating (item 5 Recreation Visits Report form 446-a); and 1 day camping (item 1 Recreation Visits Report form 446-a). This duplication of visits and visitor-days is unavoidable because this party is an impact on four recreation resources that day and requires separate recreation resources for each activity.

The following procedure will be followed in preparing column 1, table A. A review of the instructions in Forest Service Handbook 2358.2 relating to preparation of Recreation Visits Report will be helpful.

1. Transfer directly visitor-days in 1976 and 2000 on form 1 to table A columns 1(a) and 1(b) as follows:

<u>Form 1</u> <u>Item</u>	to	<u>Table A</u> <u>Item</u>
1. Campgrounds		A-1. Campgrounds
2. Picnic sites		A-2. Picnic sites
3. Winter sports		A-8. Winter=sports site
4. Organization camps		A-3. Organization sites
5. Hotels and resorts		A-4. Com. Pub. Service sites
6. Recreation residence		A-5. Recreation residence
7. Wilderness		B-1. Wilderness type areas
8. <u>Other</u>		See instructions
<u>Total</u>		See instructions
1. Hunting		B-3. Hunting Areas
2. Fishing		B-4. Fishing Areas
3. Boating		B-5. Boating Areas
		A-7. Boating Sites
4. Swimming		A-6. Swimming Sites
5. Hiking and Riding		B-6. Hiking and Riding Areas

2. Note that the boating projection from form 1 is entered twice on table A. This is necessary because there are two resource impacts -- one for development sites (docks, ramps, parking, etc.) and another for water area to navigate boats (boating areas).

3. The above instructions for transferring tabulations from form 1 to table A cover general distribution of all items in form 1 except item 8 and all items in table A except item B-2 "Unusual Interest Areas" and item C "Unallocated Uses."

Item 8, form 1 Other Areas, is a general category. It includes uses which do not fall into items 1-7 of form 1. Included are some of the hunting, fishing, hiking, riding, boating, and cross-country skiing. All of the unusual interest area use is included in item 8 and local personnel must use their best judgment in assigning from item 8 the projection to item B-2, column 1, table A, which includes Virgin, Scenic, Geological, Archeological, and Historical areas.

4. No projections will be entered in item C of table A.

The provisional projections of demand in man-days in column 1, table A, will now be converted to acres of recreation resource requirements by the use of converting factors previously determined. This will be accomplished by entering the converting factors in column 2, table A, and multiplying this by column 1a and column 1b to obtain columns 3a and 3b.

Select Lands for Examination and Determine Intensity of Examination

The previously assembled information together with the projections of resources needed (table A, column 3) will be a basis to plan the examination of recreation lands. In planning for the examination, the objective should be to find sufficient lands to meet the projected demands to the year 2000 insofar as it is possible to do so. If it appears that there will be a shortage of satisfactory lands, then it will be necessary to make a more intensive search for suitable lands or even look for lower quality lands. If it appears the demand can be met easily, then it will be necessary to look for only the highest quality lands to meet the demand.

The use to be made of recreation lands will generally determine the intensity of examination. Development sites will require a very intensive examination whereas Dispersed-Recreation Areas may require only a rather extensive examination.

The selection of lands for intensity of examination and for specific recreation uses will be done as an aerial photograph interpretation job where aerial photos are available. Where aerial photos are not available the best available maps will be used to locate and delineate lands having a reasonable recreation potential.

Aerial photographs or maps will be carefully studied and all sites or areas to be intensively examined will be delineated in pencil on the aerial photograph or acetate overlay. At the time the lands are delineated each site or area will be assigned a temporary number by inventory units. The number will be shown on the aerial photograph overlay and unit map. The category and class of recreation use will be determined and the acreage estimated. This information will be entered on table C (form 5) "LANDS TO BE EXAMINED AND INTENSITY OF EXAMINATION."

Areas selected for extensive examination will be shown on maps if no purpose can be served by the use of aerial photographs. These photographs and maps, together with table C, will be the basis for field examination.

Since table C will be compared with table A it will be necessary to use a separate table C for listing occupancy sites, swimming sites, boating sites, winter-sports sites, wilderness type areas, hunting areas, etc.

The minimum criteria for selection of sites and areas for examination will be the bottom of the "fair quality criteria" for that particular kind of use. See Evaluate Quality of Recreation Lands.

Development Sites

All development sites will be intensively examined.

Five classes of development sites will be selected for examination:

- (1) Occupancy sites (campgrounds, picnic sites, organization campsites, commercial public service sites, and recreation residences)
- (2) Boating sites
- (3) Swimming sites
- (4) Winter-sports sites
- (5) Observation sites

Occupancy sites have been so grouped because we can consider the land suitability requirement to be the same for each type of use.

Two acres should ordinarily be considered the minimum size tract suitable for development. Observation sites, roadside rests, and trail-side camps may be exceptions. Slopes over 30 percent are usually unsuitable for occupancy use.

Dispersed-Recreation Areas

Dispersed-Recreation Areas will not usually need the intensity of examination required for development sites. Therefore, most of these areas can be delineated on a map of the inventory unit instead of aerial photographs. Field examination of these areas will be only to the intensity needed to determine facts or conditions not already known or available. For each area delineated to be examined, the intensity will be clearly defined to spell out just what information field examination will obtain. If certain parts of the area boundaries need intensive examination, aerial photographs should be used to delineate those boundaries.

The recognition of unusual interest areas with wilderness, virgin, scenic, geological, archeological, and historical characteristics is extremely important for the purposes of this review. The selection of such areas for examination will require imaginative thinking by unit managers and others familiar with the forest and inventory unit. All areas which seem to meet the minimum requirements for these classifications will be inventoried regardless of demand.

Most localities have some features which have captured local imagination or interest. A scenic drive, a waterfall, a rim rock canyon, a grove of trees, a peak, an ancient ruin, or a historical site often have unusual significance to a town or city. They are examples of areas that need to be recognized in the inventory. Outstanding mountain ranges, peaks, canyons, or lakes may require scenic overlooks and special area classification to preserve their scenic qualities. Other examples of recreation

resources which should be considered are such areas as Mt. Hood, Lake Tahoe, Hells Canyon, Pikes Peak, Medicine Wheel, Joyce Kilmer Memorial, Beartooth Plateau, and Mount Shasta.

To be certain that areas of unusual interest are not overlooked it may be desirable to consult local groups or individuals having recreation interests to obtain their advice or suggestions. Forest supervisors will need to use keen judgment in making use of such contacts and suggestions.

The consideration of Virgin, Geological, Archeological and Historical areas requires knowledge of the history and natural sciences of the area. The selection of these areas should be done by someone having intimate knowledge of the unit and by consulting with persons trained in these special sciences.

Roadside Zones, Trail-side Zones, and Waterfront Zones will be delineated on a map of the unit which will be the basis for field examination.

Buffer Zones are associated only with development sites and will receive intensive examination. However, since they will be examined with the development site they will not need to be delineated separately for examination.

The delineation of Hunting Areas and Fishing Areas will be done with the assistance of the forest staff officer, handling the Game and Fish Management functions, working in cooperation with personnel from the State Game and Fish Departments and the U. S. Fish and Wildlife Service. Big-game winter ranges where they are separate from the hunting area should be delineated on maps.

For administrative purposes, the States have designated hunting and fishing areas by counties, units, districts, areas; and fishing waters by drainages, watersheds, lakes, streams, water, fishing grounds, etc. Quite often a big-game district (for example) will not coincide with a waterfowl area or with a county open to pheasants. All may overlap to some extent and none of them coincide with national-forest or ranger-district boundaries. Nevertheless, much useful data has been compiled on a basis of these varied units and can be used by Forest Service evaluators.

Most hunting and fishing areas, as defined for the purpose of the inventory, have already been established through use. There are however potential waterfowl hunting areas and fishing areas on proposed reservoirs. Unstocked or polluted waters as well as some potential hunting areas must also be considered.

Changes in the existing kinds of hunting and fishing areas will occur through the introduction of new species and through the efforts of land-management practices. Such areas should be inventoried only as they currently exist.

The delineation of boating waters for examination will require consideration of boating sites at the same time because these sites are necessary

to the use of most boating waters. If boating sites are not available then use of boating waters would not usually be feasible. Canoeing waters will not require boating sites to make them feasible but will require reasonable access.

The selection of mountain-climbing areas will require considerable discretion. Reference to mountain-climbing guidebooks and consultation with expert mountain climbers will be necessary in selecting areas to be examined and evaluated on form 29.

The delineation of boundaries and the determination of the acreage required or to be inventoried in hiking and riding areas will vary. Where trails are well dispersed or the entire terrain is suitable for these activities, the whole area may be considered. In other instances, hiking and riding, because of topography and cover, may be confined to trails and their immediate surroundings and scenery. In this case, acreage may be computed by considering a strip one-quarter or one-half mile or more on either side of the trail.

Compare Lands to be Examined with Provisional Projected Demands

At this point in the inventory a comparison will be made for each unit on the forest to see if sufficient suitable lands are available to meet the provisional projected demands. This will be done by totaling the estimated acres on table C "LANDS TO BE EXAMINED AND INTENSITY OF EXAMINATION" for each recreation category and class of site or area and comparing the totals with the lands needed to meet projected demands (table A, column 3).

Redistribute Demand between Inventory Units

When the above comparison has been made for each unit, it will show which units if any fall short of meeting the preliminary projected demands. When this happens there are two choices, (1) redistribute the demand or (2) find more land to satisfy the demand. Which choice we follow must be left to the judgment of forest officers and will be resolved on the basis of the public needs and the possibilities available to us. It is reasonable to assume that if the necessary resources of the quality inventoried are not available to satisfy the demands on a unit, people will either travel farther to another unit for that recreation, accept a less desirable site, or not pursue that particular kind of recreation. Some demands such as picnic use cannot be transferred any great distance. Other demands such as camping, winter sports, or wilderness travel can, at least in part, be transferred greater distances because such visits are usually for a longer duration.

The demands expressed in acres, table A, column 3, will ^{now} ~~not~~ be adjusted between units on a basis of considered judgment. The adjustments for each unit will be entered in column 4 of table A, first for the year 2000 and then 1976. This redistribution of demand resulting from a shortage of resources in certain locations is not susceptible of detailed description.

It can be done only by experienced forest officers who know the forest, the potential access possibilities, and habits of recreationists. The redistribution of demand must be done by the forest supervisor and his staff. Their knowledge and judgment will be essential to deciding which demands can be adjusted and the extent to which they can be reasonably adjusted. In making these adjustments between units, the projections of demand for each item (kind of use) must remain the same for the forest. In other words, this adjustment is only between units on a forest and a decrease on one district must be balanced by an increase on another district.

Demand projections for each State will usually remain constant. Therefore, forests and regions will not make any adjustments between States in balancing supply and demand without Washington office approval.

When the redistribution of demand between units has been completed, it will be necessary to go back and select additional lands for examination on those units to which additional demands have been assigned. This selection of lands should be liberal (about 20 percent in excess of demand if possible) to allow for errors in estimated acreage and the possibility that some sites and areas may, after examination, be excluded for administrative reasons.

If sufficient suitable lands are still not available, and multiple-use management direction has been a limiting factor, the forest supervisor will review the multiple-use management direction in light of the projected demands. If the management direction does not appear to be adequate, applicable changes can be recommended by the forest supervisor for approval of the regional forester or Chief after which the amended direction will be followed. The availability of recreation lands will be reconsidered in accordance with the amended direction.

If sufficient lands are still not available, it may be necessary to consider lower minimum criteria for quality evaluation and then segregate additional lands for examination. If lands of reasonable quality cannot be found it may be necessary to accept a deficit in some activity as final.

Examine Sites or Areas

Examination will be made of all existing sites and areas developed or classified as of June 30, 1960, and all sites and areas which were segregated and selected as having reasonable recreation potential. Examination will vary from intensive "on-the-ground" examination for development sites to a more extensive examination consisting of assembling and recording available data for areas.

Development Site Examination

All development sites both existing and potential will be intensively examined on the ground by a one-man crew. The following is a suggested list of equipment and supplies:

1. Aerial photographs showing the sites delineated for examination
2. Development site plan maps for developed sites
3. Inventory unit map (best available)
4. Abney level
5. Tatum, large
6. Altimeter
7. Acetate overlay sheets for aerial photographs
8. Field stereoscope
9. Plastic triangle (small)
10. Modified acreage grid
11. Site and area data sheets
12. Pencils for mapping on acetate overlays
13. Engineers rule

The field examiner will examine and record on the proper field inventory form complete information for the site. Separate forms have been designed for existing and potential sites. Field inventory forms 16 through 19 include instructions for recording inventory data. The quality evaluation criteria to be considered in recording data are explained in detail under "Criteria for Quality Determination."

The minimum size development site to be inventoried is two acres. Regions will also need to give consideration to the maximum and optimum size of sites to be inventoried. Small sites of 5 or 6-family units, or small resorts with just a few cabins are not very economical from the standpoint of development or administration. Large sites of 250 to 300-family units do not usually represent a normal forest environment. An inventoried site of 100 acres would represent such a development. The suggested optimum size site is 10 to 30 acres. Larger areas can often be inventoried as two or more sites allowing for some intervening space. Where the recreation attraction is great and lands suitable for development are limited, it may sometimes be necessary to inventory a larger development site. An example might be a large lake having an attraction for fishing and boating but limited lands suitable for development. The inventory based on these guidelines will better fill the needs of recreation planning.

Caution must be used to not designate too wide a buffer zone around development sites. The width of the buffer zone should be such that it meets the intent of Forest Service policy as expressed in the Manual. Buffer zones should be only of sufficient width to protect the recreation values of the development site. The Manual guideline for zones is 200 feet. Depending on the cover, topography, and other factors this width can vary.

Each examined site will be mapped. The mapping procedure will usually be different for existing and potential sites. For potential sites mapping will be on the acetate overlay to the aerial photograph. The steps in mapping will be: (See sample map appendix 3)

1. Mark "jibe points" on the aerial photo and overlay so the overlay can at any time be properly positioned on the photo. Trace photo identification on overlay.

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1. Mark "jibe points" on the aerial photo and overlay so the overlay can at any time be properly positioned on the photo. Trace photo identification on overlay.

2. Draw the boundary of the usable lands on the overlay. This will not include the buffer strip around the site or lands within the boundary which are not usable for development.
3. Delineate and cross-hatch any unusable lands within the boundary.
4. Draw the boundary of the site buffer zone.
5. Map on overlay all pertinent adjacent features and improvements such as roads, water, etc.
6. If the site is too small to properly show the pertinent features and improvements an insert free hand sketch of the site will be drawn on the overlay.
7. With modified acreage grid compute acres of usable development site and acres of buffer zone. *separately.*
8. Enter these acreages on the map.
9. Place development site number, the kind of site, and name, if any, on the map overlay. The development sites will be numbered consecutively by ranger districts.

On existing sites the site plan map will be used for mapping. The steps in mapping will be:

1. Draw boundary of usable lands on the map.
2. Delineate and cross-hatch any unusable lands within the boundary.
3. Draw the boundary of the site buffer zone.
4. With modified acreage grid compute acres of usable development site and acres of buffer zone. *separately.*
5. Enter these acreages on the map.
6. Place development site number on the map.

If the recreation use of all or part of the existing site will be eliminated in the future and will be available for other recreation use by 1976 or 2000, inventory that acreage as a potential site also.

Potential waterfront development sites, swimming and boating will be inventoried on form 18. The site will be evaluated separately for swimming and for boating. The acreage of the site will then be assigned to either swimming, boating or divided between the two on the basis of determined demands and the suitability of the site for the particular use.

The examination of winter-sports sites will be somewhat different than for other development sites in that they may require both a summer and winter examination and somewhat different mapping. The pertinent acreage figure for determining the capacity of winter-sports sites is acres of usable ski trails and slopes as well as usable acres for other winter sports. These trails and slopes will be mapped and acreage computed on the basis of beginner, intermediate, and expert trails and slopes.

Since parking area may be a limiting factor for some winter-sports sites the examiner should not report more area in usable terrain than is necessary to accommodate the number of people for which parking can be developed. The site map, however, will show the exterior boundary, buffer zone, total area of usable winter-sports terrain and area for other developments. As a guide 1 acre will park 70 cars and with 4 persons per car 1 acre will accommodate 280 people for parking.

Examination of Dispersed-Recreation Areas

All classified or established and potential dispersed-recreation areas will be examined and mapped. Examination will be to the intensity necessary to obtain the information to complete the field inventory forms 20 through 31. Where this requires intensive examination for specific information it will be necessary to make a field examination. Otherwise examination will consist of recording available data on the field inventory form.

Mapping will be done on the best available inventory unit maps, and acreage computed from these maps. If some mapping is necessary on aerial photos it will be done in the same manner as for development sites.

The data pertinent to Virgin, Geological, Archeological and Historical areas involves knowledge of the history or natural sciences of the area. Where necessary there should be consultation with persons trained in these sciences to obtain this information. This consultation may be within the service or with outside personnel attached to universities or state historical societies.

Roadside, trailside, and waterfront zones will be delineated on a map and the field inventory form 30 completed.

The examination and mapping, as well as the evaluation of hunting areas and fishing waters, will be done by the forest staff officer handling the game and fish management functions, working in cooperation with personnel from State Game and Fish Departments and the U. S. Fish and Wildlife Service.

Key seasonal wildlife ranges, such as limited deer or elk winter range, are essential to maintaining quality of hunting areas and are intensively managed. They should, therefore, be intensively examined and mapped.

Use field inventory form 31 for inventory and evaluation of hiking and riding areas.

Make Administrative Review of Examined Sites or Areas

When the examination of an inventory unit has been completed there will be an administrative review of potential sites and areas by the ranger and forest supervisor. They will consider these sites and areas from the standpoint of multiple-use management and decide whether there is any conflict.

If it is decided to eliminate a particular potential site or area from the inventory, this will be noted and explained on the site or area field inventory form. These forms will be retained and the acreage will appear in table E, column 2(b).

Summary of Inventory Procedure

The following diagram illustrates the flow of information through the field examination:

PROVISIONAL PROJECTIONS

CONVERTING
FACTORS

Form 1 - PROVISIONAL PROJECTIONS
OF RECREATION DEMAND

TABLE A (form 3) - ADJUSTMENT AND CONVERSION OF PROVISIONAL PROJECTIONS
(The completion of columns 1, 2, and 3 of this form results in the acreage
of resources needed to meet the projected demands for the years 1976 and
2000).

ASSEMBLE PERTINENT RELATED INFORMATION

(This information will be placed on maps and overlays and will be used
when selecting lands for examination.)

SELECT LANDS FOR EXAMINATION

(Sites and areas will be delineated on aerial photographs and maps and
also listed in table C.)

TABLE C (form 5) LANDS TO BE EXAMINED AND INTENSITY OF EXAMINATION

(The information listed here will be the basis or job list for field
examination.)

COMPARE TABLES A AND C AND REDISTRIBUTE DEMAND BETWEEN INVENTORY UNITS

TABLE A - (Complete columns 4, 5, and 6.)

SELECT ADDITIONAL LANDS FOR EXAMINATION

(This will be necessary if the comparison of tables A and C above show
shortages of lands selected for examination.)

TABLE C

EXAMINE AND EVALUATE SITES AND AREAS

FIELD INVENTORY FORMS 16 through 31

(All inventory data will be entered on forms and the site or area
quality will be determined and recorded on inventory forms 17 through
29 and form 31.)

ADMINISTRATIVE REVIEW OF EXAMINED SITES OR AREAS

Need for Evaluating Quality of Recreation Lands

Increasing demand for recreation lands and competition between recreation uses as well as competition between recreation and other land uses make it necessary that lands suitable for various types of recreation use be recognized and segregated into quality classes so that the highest quality lands may be allocated to the most appropriate and highest priority recreation use. It is also desirable for planning purposes to know the amount of various quality lands represented in each recreation resource category.

Certain characteristics of lands and their surroundings are definable in precise qualitative and quantitative terms. Other characteristics, more or less intangible, can only be expressed in general or relative terms. The field inventory forms recognize these two approaches.

The quality of sites and areas will be systematically evaluated on the basis of various sets of criteria. Such evaluation will result in assignment of the site or area to one of three quality classes, (1) Outstanding, (2) Good, (3) Fair. Lands which do not meet minimum criteria for "Fair" will be considered unsuitable.

Field inventory forms are designed for recording site and area quality criteria. These criteria are further explained in the discourse which follows.

Development Site Criteria

Occupancy Sites

The field inventory form 17 will be used for recording all quality criteria information for occupancy sites.

Attraction -- Criterion #1

There is usually a direct relationship between the popularity of a development site and its proximity to an interesting, scenic, aesthetic, or physically useful feature. This attraction might be a body of water, a meadow or park, a mountain peak, an unusual view, or a combination of such features.

The distance factor here is relative and must be considered in terms of local conditions and the importance of the attraction.

The local weight or value placed on an attraction will vary with the frequency of local occurrence and its relative quality. Where small live streams are common, the quality of a potential development site located 1/4 mile from such a stream might be unaffected by it. Where live water is scarce, a site over 1/2 mile away might be up-graded even if access is by foot trail. A camp or picnic site might be attractive because it affords a distant scenic view or because it provides a base of operations from which to visit an ocean beach or a mountain lake some distance away.

Regions and forests will determine the relative significance of local attractions and define the term "reasonable distance."

This criterion is divided into two recognizable groups of physical attractions. They are listed and rated in general (but not necessarily local) order of desirability as follows:

ATTRACTION: Accessible to and within reasonable distance of:

<u>A-1, Water</u>		<u>A-2, Land</u>	
Ocean, bay, lake, or reservoir (10 acres or larger)	1	Unusual scenery or other recreation feature outstanding	1
River or other major stream	2	Park grove or meadow	2
Small live stream	3	Scenery or other recreation feature locally common	3
Pond or pool less than 10 ac.	4		
Intermittent stream or spring (flows 1/2 season or more)	5	Not accessible to or within reason- able distance of above	4
Not accessible to or within reasonable distance of above	6		

Rated single scale _____ Combined scale _____

Regions may elect to use either A-1 or A-2, or use a combined scale and established frame of minimum acceptability accordingly.

1. Use of single scale: Where water is almost the sole attraction and there is little or no demand for sites not associated with water, regions may elect to use scale A-1. Conversely, in localities where water is commonplace or even a detraction, the use of scale A-2 may be preferred.
2. Use of combined scale: Since "attraction" is usually a combination of factors, this procedure is preferred. When the combined scale is used, both A-1 and A-2 are rated, and the numerical values are added to score the attraction.

Using the combined scale, the most desirable sites from the standpoint of attraction will rate 2, and the least desirable (other than those with no attraction) will rate 10. Identical numbered ratings may result from two or more combinations of conditions (i.e., lake plus park or meadow = 3; river plus unusual scenery = 3).

Climatic Relief -- Criterion #2

Desirability of certain areas and sites may vary directly with the degree of climatic relief which they afford during the season of use. In regions with an agreeable climate throughout the recreation season, this factor may be of little or no importance in appraising site quality. However, where cool timbered mountains or plateaus are within reasonable distance of heavily populated hot or humid lowlands, demand is almost inevitable. Climatic relief may be from hot to cool in summer or from cold to warm in winter. It may also take the form of relief from irritating pollens or other substances which stimulate allergic reactions. Some sites may be downgraded because the local climate is less agreeable than that in nearby population centers. Five conditions of climatic relief are recognized and expressed in terms of temperature differential (degrees Fahrenheit + or -) between the site and that prevailing at the user population centers. These are listed in general (but not necessarily local) order of desirability as follows:

CLIMATIC RELIEF:

Average temperature differential during use season --

More than 15° F.	1
11 - 15° F.	2
6 - 10° F.	3
0 - 5° F.	4
Negative	5

Forest Environment -- Criterion #3

"Environment" as used in this context means "surroundings" and to a limited extent "external conditions and influences." Thus, when judging the quality of the forest environment, consideration must be given to the aggregate of physical and biotic conditions on or near the site as they affect the local "atmosphere" (aesthetic tone or mood of the place).

Forest environment must be judged on the basis of local comparison and example. For inventory purposes, six conditions of forest environment are expressed in order of desirability as follows:

FOREST ENVIRONMENT:

Excellent, practically without environmental detractions	1
Well preserved, not more than minor detractions	2
Not outstanding. Detractions substantial but acceptable	3
Detractions serious, but suitable for commercial public service	4
Unacceptable for recreation. Correction feasible	5
Unacceptable or unsafe due to fire hazards, slides, flash floods, etc. and correction not feasible	6

A hypothetical set of circumstances and resulting gradation are presented here as an interpretive aid.

- Grade 1: Site is undisturbed, timber is virgin, or if logged, signs of logging have disappeared. Surroundings are comparable and the development site is not within sight or sound of a commercial enterprise or other element foreign to the forest environment. Wildlife species varied and/or abundant.
- Grade 2: Similar to Grade 1, but truck traffic on a busy highway 1/4 mile distant is readily audible and the noise detracts slightly from the local atmosphere. Wildlife present but not abundant.
- Grade 3: Similar to Grade 2 but the site and surrounding area was selectively logged 10 years ago and some evidence of logging is still apparent. On alienated land just beyond the buffer zone, a motel is under construction. Wildlife relatively scarce.
- Grade 4: Similar to Grade 3 but on the fringe of or surrounded by developments which detract from the environment.
- Grade 5: Similar to Grades 2 or 3 but assessment work on an invalid mining claim has left unsightly or unsafe scars and pits. Damage can be repaired by leveling and planting.
- Grade 6: Area subject to floods or fuel type HH, occurrence high and located where the possibility of entrapment exists.

Terrain -- Criterion #4

The nature of the terrain has a direct effect on the type, cost and intensity of development. Camping and trailer use require relatively level sites, while rolling to somewhat irregular sites may well be adapted to picnic use. Recreation residences can often be located on quite irregular terrain in a satisfactory manner, but slopes over 30% will seldom be useful for occupancy purposes. When necessary, virtually any type of terrain can be modified to adapt it to recreational occupancy, but cost factors will rise in proportion to the irregularity of the site.

For inventory purposes, four conditions of terrain are recognized and rated from 1 to 4 in order of desirability.

TERRAIN:

Regular	-	Slopes 0 to 10%	1
Rolling	-	" 10 to 20%	2
Irregular	-	" 20 to 30%	3
Abrupt	-	" over 30%	4

Soil - Criterion #5

This criterion is intended to express, at least in broad terms, the durability of the site; its susceptibility to damage through compaction or erosion, the relative difficulty of establishing or retaining vegetative cover, and the extent to which drainage may present a problem. It should also serve as an indicator of development costs.

In order that nontechnical personnel may report soil conditions in a uniform manner, four factors expressed as (1) fertility, (2) stability, (3) depth, (4) permeability will each be rated "good," "fair," or "poor," on a scale of 3. The total score will be added and expressed on a scale of 4 to indicate the overall effect of the factors considered. A rating of 5 is directly assigned if the site is poorly drained or boggy.

It is recognized that highly desirable and well-located sites may be situated on shelf rock, decomposed granite, caliche, or gravel beds which for all intents and purposes are sterile. There is no hope and little need of establishing grass or other low cover on such sites. They are not usually subject to damage through compaction, nor can they noticeably erode. In such cases, the factors of fertility, stability, depth, and permeability have little or no significance, and the question to be resolved is whether under such conditions an otherwise suitable site can be developed at reasonable cost. In cases of this kind, evaluators should rely upon their judgment and directly assign a rating which reflects the cost and feasibility of development.

Regions will develop regional or subregional criteria for rating each of the four factors on the basis of recognizable nontechnical observations.

SOIL:

		<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Score</u>	
Fertility	-	3	2	1	11-12	..... 1
Stability	-	3	2	1	9-10	..... 2
Depth	-	3	2	1	7-8	..... 3
Permeability	-	3	2	1	4-6	..... 4
Damp, poorly drained, bog or swamp						..... 5
Extensive rock exposures, ledges, etc., (rate on development cost)					 ()

Shade or Shelter - Criterion #6

This criterion is intended as a measure of the extent to which a site is or may be shaded or sheltered from sun and/or wind. The importance of shade or shelter varies with the type of development site and the elevation or climatic zone in which it is located. The desirability of such shade or shelter is considered when devising local frames of minimum acceptability.

Since the amount of shade on a site varies with the season and time of day, this factor is expressed in terms of the percentage of the site which is covered by a tree canopy capable of casting reasonably dense shade from

a height sufficient to render it useful. When the canopy is composed of both high shade (30 feet or over) and low shade (under 30 feet), express in terms of the larger component.

At high elevations (perhaps 8,000 feet or more) shade may be undesirable, and brush, boulders, or other shelter from the wind may be important. Where this situation occurs, regions should formulate and apply a "direct shelter rating" (preferably on a scale of 7) for sites above locally specified elevations.

To recognize and properly evaluate highly desirable and well-located sites on which shade or shelter is lacking but can and should be artificially supplied (i.e., a ramada in the desert or a windbreak or other shelter in the high country), regions should formulate and apply a "constructed (shade, shelter) rating" (preferably on a scale of 7) to reflect the cost of providing adequate shade or shelter.

Space is provided on form 17 to record direct or constructed ratings.

For purposes of this inventory, seven conditions are recognized and rated from 1 to 7 in general order of desirability as follows:

SHADE OR SHELTER:

High shade - 50 - 100% = 1, 25 - 50% = 3, 10 - 25% = 5

Low shade - 50 - 100% = 2, 25 - 50% = 4, 10 - 25% = 6

High and low shade less than 10% = 7

OR: Direct shelter rating (); constructed rating ()

Cover (Composition and Density) - Criterion #7

"Cover" as used here is meant to reflect the composition and density of vegetation which occurs below the shade-producing level (Criterion #6). It includes grass, shrubs, brush, seedlings, cacti, and any other verdure which serves to protect the site from erosion, provide screening, or contribute to aesthetic values. The composition and density of cover also has a bearing on cost of site development, management, and maintenance.

Four conditions of composition and density ("excellent" through "fair") will be recognized and graded 1 through 5. The grades will be added to obtain a total score expressed on a scale of 5.

Cover will be rated on applicable local definitions devised on a regional or subregional basis to describe conditions of composition and density which locally range from "excellent" to "unsatisfactory". In preparing such definitions, it should be noted that where composition is rated "unsatisfactory" (cover consists of poisonous or otherwise objectionable species) density should be rated in inverse order of occurrence.

COVER (Composition and Density):

	<u>Composition</u>	<u>Density</u>	<u>Score</u>
Excellent	1	1	2-3 1
Good	2	2	4-5 2
Fair	3	3	5-6 3
Score above 6, but correction feasible at mod. cost			..... 4
Unsatisfactory	5	5	7-10 5

Following is a sample local application of the composition and density criterion for the semi-desert type in Region 3:

Composition:	Excellent	- Tamarisk, Mesquite, Ironwood, Palo Verde, Ocotillo, Grass (and other herbaceous)
	Good	- Saguaro, Barrel Cacti, Bear Grass, Manzanita
	Fair	- Prickly Pear, Cat Claw, Creosote Bush
	*Unsat.	- Cholla, Christmas Cactus
Density:	Excellent	- 80% plus
	Good	- 40 - 80%
	Fair	- 10 - 40%
	Unsat.	- 10% and less

* Where composition is rated "unsatisfactory" (composed of poisonous or otherwise objectionable species) rate density in inverse order of occurrence.

Domestic Water -- Criterion #8

The availability of an adequate supply of domestic water is often the key factor in appraising the suitability of a site for a specific purpose. It is the purpose of this criterion to express in broad terms the cost (or degree of difficulty) involved in making an adequate water supply available to the site. (Not including distribution on the site.)

For each site, the examiner (or unit manager) should determine the location of the most feasible water source and make the following calculation:

Using typical development costs of \$1.00 per foot of line in place and \$7.00 per foot of well or the cost of the source development, plus \$500.00 for appurtenances plus treatment plant cost if necessary: Or, using applicable local costs - compute:

$$\text{Cost per acre} = \frac{\text{ft. pipeline} \times \$1.00 + \text{ft. well} \times \$7.00 (\text{or cost of source development}) + \$500.00 + \text{treatment plant}}{\text{Development acres}}$$

In general, water development cost per usable campground acre may be considered low if less than \$300; moderate if \$300 to \$900; high if \$900 to \$1500 and probably not justified if over \$1500. Each region will analyze the applicability of these cost ranges in relation to its local water situation. Where water is relatively scarce or plentiful, the range may be adjusted upward or downward so as to be significant under local conditions.

There can be no absolute standard as to the volume of water which will be considered "adequate" at the time of inventory since, in the case of potential sites, the type of use to which the site will be allocated is not known. Therefore, an arbitrary minimum of 100 gallons per day per development acre is suggested as "adequate," but regions may adjust this figure if good reasons exist for doing so.

The availability of domestic water is graded in four classes, numbered 1 - 4 in order of desirability.

DOMESTIC WATER:

Adequate supply can be developed at low cost	1
" " " " " " moderate cost	2
" " " " " " high cost	3
Probably not justified to develop adequate supply	4

Observation Sites

Data on observation sites will be recorded on field inventory form #17. These are sites primarily valuable as a place from which to enjoy unusual or spectacular views. Because observation site developments will usually consist primarily of parking lots and sanitary facilities and occupancy will be for a very limited time the importance of some criteria for observation sites will not be the same as for development sites. This must be considered in making the quality ratings for observation sites. For example, climatic relief or shade might not be of particular importance in judging the quality of an observation site.

Swimming and Boating Sites

Developments or improvements installed to facilitate water-associated activities usually occur as an adjunct to a related facility such as a campground, organization camp, or resort. The site suitable for such facilities will be evaluated on form 18 using the criteria for waterfront sites.

These criteria are designed to evaluate the suitability of water, beach, and bottom for swimming and/or boating, using separate prescriptions for each.

Water Temperature -- Criterion #1

The water temperature during the season of use will provide a basis for determining waters suitable for swimming. This is usually at temperatures not below 68° F. Acceptable water temperature for boating may be

much lower. The temperature at which swimming and/or boating become marginal should be established on a regional or local basis.

Shoreline or Flow Fluctuation -- Criterion #2

When any body of water is subject to sudden, unpredictable, or inopportune fluctuations over an important elevation range, suitability of its shoreline for various recreational pursuits must be given most careful consideration. The effect of any such fluctuations on swimming and boating activities will vary with the steepness of slopes above and below normal waterline, the average depth of water after maximum drawdown, the nature of the bottom and shore (sand, mud, rock, etc.), the presence or absence of stumps and other debris, and the extent to which the changes occur within the normal recreation season. Therefore, the rating assigned to this factor must be made in the light of these considerations.

Four conditions of suitability are recognized and rated from 1 to 4 in order of desirability.

SHORELINE OR FLOW FLUCTUATION (During recreation season)

Little or none	1
Moderate or immaterial	2
*Major - detracts less than 1/2 season	3
*Major - detracts more than 1/2 season	4

*May include small but hazardous fluctuations where stream flow is regulated by hydro-electric developments.

Shoreline - First 50' above water -- Criterion #3

The nature of the beach for a distance of about 50 feet back of the waterline influences its suitability for swimming and/or boating. Sand is preferred by swimmers, while either sand or gravel is quite suitable for boating. The relative suitability of soil (mud) and rocks will vary with local conditions. Recognizing that docks or artificial beach can be provided to overcome most beach deficiencies, this criterion is a measure of suitability in the natural state and an indicator of development costs.

Five conditions of beach are recognized and rated from 1 to 5 in order of suitability.

SHORELINE - first 50' back of water:

Sand	1
Gravel	2
Timbered	3
Soil-mud	4
Rock	5

Bottom -- Criterion #4

The nature of the bottom to a water depth of 2 or 3 feet effects suitability for boating. Suitability for swimming is effected to a depth of about 5 feet. Beyond these depths this factor is immaterial.

Five conditions of bottom are recognized and rated from 1 to 5 in order of suitability. Rate separately for swimming and boating.

BOTTOM - below waterline to 5' depth:

Boating		Swimming	
Sand	1	Sand	1
Gravel	2	Gravel	2
Vegetation	3	Rock	3
Mud	4	Mud	4
Rock	5	Vegetation	5

Distance to 5' Depth -- Criterion #5

This is a practical measure of slope or rate of drop-off from waterline to maximum wading depth. It is particularly pertinent to swimming but is also a factor to be considered for boating.

Four swimming conditions are rated from 1 to 4 in order of suitability. They are rated in inverse order for boating.

DISTANCE - shoreline to 5' depth (average)

Swimming		Boating	
100' or more	1	0' - 25'	1
50' - 100'	2	25' - 50'	2
25' - 50'	3	50' - 100'	3
0' - 25'	4	100' - or more	4

Industrial or Domestic Pollution -- Criterion #6

Four conditions are recognized and rated from 1 to 4 in order of suitability.

INDUSTRIAL OR DOMESTIC POLLUTION

Uncontaminated	1
Contaminated	2
Light pollution	3
Heavy pollution	4

Terms are defined and applied as follows, subject to local adjustment on the basis of State or county laws and ordinances:

Uncontaminated - - - - Free of harmful chemicals or bacteria. Fit for human consumption without treatment.

- Contaminated - - - - - Contains undesirable bacteria and/or chemicals.
Not safe for human consumption without treatment.
Meets minimum public health standards for bathing
and swimming.
- Light pollution - - - - In addition to undesirable bacteria and chemicals,
contains visually evident traces of objectionable
organic matter or other foreign material. Unsafe
for swimming but satisfactory though undesirable
for boating.
- Heavy pollution - - - - Objectionable foreign matter readily evident to
sight, often accompanied by rank odors. Not safe
for swimming or water sports, undesirable for
boating.

Water - Color and Turbidity -- Criterion #7

The clarity of water will be ocularly estimated under average conditions
on the basis of transparency.

Three conditions are recognized and rated from 1 to 3 in order of desir-
ability.

Color and Turbidity

Clear	Objects distinguishable 24" below surface -	1
Cloudy to murky	Objects recognized more than 8" but less than 24" below surface - - - - -	2
Muddy	Objects unrecognizable when covered with 8" of water - - - - -	3

Wind Velocity and Constancy -- Criterion #8

In certain instances the direction, velocity, and constancy of prevailing
winds has a marked effect on the suitability of swimming and boating
activities. Examples are sudden and violent storms, constant high velocity
winds, etc. Regions will define "favorable" and "unfavorable" winds in
terms which are significant under local conditions.

Four conditions of wind velocity and constancy are recognized and rated
from 1 to 4 in order of desirability.

WIND VELOCITY AND CONSTANCY

Favorable full season	1
Favorable more than 1/2 season	2
Unfavorable more than 1/2 season	3
Unfavorable full season	4

Classification of Water -- Criterion #9

Water has been classified by the authority for administration of recreation use and rated as to its availability for development by the Forest Service as follows:

National Forest	1
Navigable	2
Other Public	3
Private	4

Winter-Sports Sites

Winter-sports use on the national forests is predominantly skiing but also includes skating, tobogganing, sledding. Sites will usually be rated for skiing but if a site is being rated for one or more of the uses other than skiing only the applicable criteria for these minor uses would be considered. Quality criteria for winter-sports sites will be recorded on field inventory form 19.

The conditions listed under all winter-sports criteria are rated in the order of desirability with the rating 1 being the most desirable.

Snow Cover or Ice -- Criterion #1

All winter sports are dependent on either snow cover or ice. The quality of the site, however, is dependent upon several conditions of this snow or ice which can be rated as follows:

a. Period of sufficient snow to make winter sports feasible

Snow Cover 4 months or more - - - - -	1
Snow Cover 3 months - - - - -	2
Snow Cover 2 months - - - - -	3
Snow Cover 1 month - - - - -	4
Snow Cover less than 1 month - - - - -	5

b. Snow texture

Dry Snow 2/3 of season or more - - - - -	1
Dry Snow 1/2 of season - - - - -	2
Dry Snow 1/3 of season - - - - -	3
Dry Snow 1/4 of season - - - - -	4
Usually wet or icy - - - - -	5

c. Snow depth during peak period of use

4 feet or more - - - - -	1
3 to 4 feet - - - - -	2
2 to 3 feet - - - - -	3
1 to 2 feet - - - - -	4
Less than 1 foot - - - - -	5

d. Snowfall as an adverse factor

Excessive snow on a winter-sports site can be an adverse factor when it creates a problem of snow removal, operation of facilities, packing of slopes, or produces personal discomfort.

Snowfall does not create major problems of snow removal, operation of facilities, or discomfort	1
Snowfall occasionally creates major problems	2
Snowfall creates major problems at least one-half of the season	3
Snowfall creates major problems most of the season	4

e. Period of satisfactory open ice (Only when ice skating is to be considered)

Satisfactory ice conditions for 90 days or more	1
Satisfactory ice conditions for 60 days	2
Satisfactory ice conditions for 30 days	3
Satisfactory ice conditions for less than 30 days	4

Vertical Rise of Slopes -- Criterion #2

3000 feet or more	1
2500 - 3000 feet	2
2000 - 2500 feet	3
1500 - 2000 feet	4
1000 - 1500 feet	5
500 - 1000 feet	6
300 - 500 feet	7
Less than 300 feet	8

Steepness of Slope -- Criterion #3

The objective of winter-sports recreation development is to meet the varied needs of the majority of the users. To do this the most desirable site is one which will furnish slopes suited to the various abilities of skiers about in proportion to their abilities. The slopes on the site can be rated as follows considering novice slopes as 10 to 20 percent, intermediate slopes 20 to 35 percent, and advanced slopes over 35 percent.

40 to 60% of usable slope areas is intermediate with adequate novice and advanced slopes	1
Majority of usable slope area intermediate but with adequate novice slopes and some advanced slopes	2

Majority of usable slopes are intermediate with adequate novice slopes and no advanced slopes	3
Most of usable slopes are novice	4
Most of usable slopes are advanced	5

Aspect of Slopes -- Criterion #4

General aspect of slopes is north	1
General aspect of slopes is east or west	2
General aspect of slopes is south	3

Wind Conditions -- Criterion #5

Very slight winds	1
Occasional winds causing drifting	2
Occasional high winds	3
Frequent high winds	4

Temperatures -- Criterion #6

Excessively high or low temperatures are not desirable for winter sports. High temperatures are indirectly expressed in snow cover and conditions. Temperatures below 0° F. during the day result in personal discomfort and are, therefore, a quality criterion.

Day temperature generally above 0° F.	1
Day temperature above 0° F. on majority of days	2
Day temperature below 0° F. on majority of days	3

Avalanche Possibilities -- Criterion #7

No avalanche problems	1
Occasional avalanche possibilities but little hazard to life or property	2
Frequent avalanche possibilities but life and property safe with planned avalanche control	3
With intensive avalanche control site is safe and satisfactory for use a majority of the use season	4
Site unsafe or unsatisfactory for use due to avalanches at least one-half the season even with intensive avalanche control	5

Slope Protection -- Criterion #8

Slope protection from wind and sun action, where needed, is a very important factor on winter-sports sites. It may be tall trees, terrain protection such as ridges, or a combination of both. Some sites may not need protection.

Adequate protection for slopes or protection not needed	1
Adequate protection for most slopes	2
Inadequate protection for most slopes	3
Inadequate protection for all slopes	4

Cost of Slope Clearing -- Criterion #9

The amount, density, and size of tree and ground cover will have a material effect on the cost of clearing slopes. Also the merchantability and accessibility of the timber will offset these costs.

Slope clearing costs low	1
Slope clearing costs moderate	2
Slope clearing costs high	3

Ground Surface Conditions -- Criterion #10

Rock outcropping, amount of surface rock, size of surface rock, and soil cover all contribute to the cost of preparing satisfactory slopes for winter sports. Since these are cost factors they can be expressed as follows:

No surface work needed	1
Some surface work needed	2
Moderate surface work needed	3
Heavy surface work needed	4

Availability of Electric Power -- Criterion #11

Commercial electric power is a very important factor to a winter-sports area both from a standpoint of convenience and cost.

Commercial electric power at site	1
Commercial electric power available at moderate cost	2
Commercial electric power available at high cost	3
Commercial electric power not available	4

Parking Development Costs -- Criterion #12

Parking development costs low	1
Parking development costs moderate	2
Parking development costs high	3

Convenience of Parking Location -- Criterion #13

Parking on-site and within easy walking distance to slopes and facilities	1
Parking on-site but at some distance from facilities	2
Parking off-site and requiring long walk or other means of transportation to reach facilities	3

Appurtenant Service Development Possibilities -- Criterion #14

Adequate room and easy development chance for shelters, sanitation, water, etc.	1
Moderate amount of room and moderate development chance for appurtenant service facilities	2
Little room and difficult development chance for appurtenant facilities	3

Year-long or Seasonal Recreation -- Criterion #15

If a winter-sports site has opportunity for summer recreation also, it is a much better recreation chance than a site which only has potential for winter use.

Site has as much or more summer recreation potential as winter	1
Site offers some summer recreation potential	2
Site offers no summer recreation potential	3

Damage to Aesthetic View -- Criterion #16

Slope clearing and developments will not mar the landscape or will not be seen from main routes of travel or centers of population.	1
Slope clearing and developments will not seriously mar the landscape or will not be readily seen from main routes of travel or centers of population.	2
Slope clearing and developments will seriously mar the landscape and will be readily seen from main routes of travel or centers of population.	3

Dispersed-Recreation Area Criteria

Wilderness, Wild, and Roadless Areas

Though wilderness areas provide a very wide range of outdoor recreation activities they also provide an overall wilderness experience which is not only the sum of varied outdoor experience and activities but also something more and beyond. Activities such as hunting, fishing, photographing, mountain climbing, etc. may in themselves be the core of a wilderness experience or merely a wilderness recreation activity. All are, however, valuable and legitimate uses of most wilderness areas and must be considered in a comprehensive evaluation.

A wilderness experience or a wilderness type of use is one which provides isolation from the masses and mechanization of civilization, and respite from a complex and highly regulated life through refreshment and refuge in a natural environment such as has been instrumental in moulding man's physical, emotional, aesthetic, and spiritual development over the ages. It offers man an opportunity to test his judgment, skills, self-reliance, and fortitude. It creates in him a perception of expansive solitude, a sense of freedom, a spirit of adventure, excitement, a physical and mental challenge, a spiritual comfort. It puts man simultaneously in struggle (conflict) and in harmony with nature.

The values involved here are both objective and subjective. Wilderness has value only by virtue of the possibility of its being valued. Without man, the values are only potential.

Wilderness values are both objective and subjective. They and the wilderness experiences are such that the presence and effect of too many people tend to destroy them. Individuals assigned to evaluating wilderness areas should be able to recognize, identify, and understand these values. They should also be personally familiar with wilderness experience and the area to be inventoried. Unit manager will assist in and review the inventory and evaluation of wilderness-type areas.

Form #20 "Evaluation of Wilderness-Type Areas" will be used for recording information on established and potential wilderness, wild, and roadless areas as defined under Classification of Recreation Lands. Fourteen criteria are rated and most are self-explanatory if considered in the light of the wilderness concept. Criteria 1, 2, 5, 7, 8, 9, 10, 11, 12, 13, and 14 are self-explanatory on form 20.

Campsites -- Criterion #3

To qualify as a potential wilderness camp, the site should provide drinking water, fuel, pleasant view or surroundings, and enough reasonably level ground for a few bed sites. In addition forage for saddle and pack stock must be available if it is to qualify as a camp for travelers with animals. These grazing lands should be able to withstand moderate and repeated use.

A drinking water supply for a wilderness camp can be very limited. It could be a high-altitude rivulet, a near year-round snow field, a desert or mountain seep, etc. A more ample water supply is required for a saddle and pack stock camp. In desert wilderness areas some dry camp sites should be considered in the evaluation as it is common and accepted practice for desert wilderness travelers to provide their own water when traveling between natural supplies.

Fuel is not often a camp limiting factor where dispersed, rather than concentrated, wilderness camping is in practice. Minimum needs can generally be met from sources such as a few high-altitude pine knots, from the dead roots of desert plants, or from a collection of driftwood in a treeless river canyon. Mountain climbers provide their own fuel when bivouacking above timber line. Greater quantities of fuel are required for wilderness winter travel but it is not practical to delineate such sites.

Fishing, Hunting -- Criteria #4 and #6

Hunting and fishing within wilderness areas either will be or have been evaluated on forms 26 or 27. The rating for criteria 4 and 6 should be obtained from and generally agree with those ratings.

Natural Areas and Nature Sanctuaries

Natural areas and nature sanctuaries are not classified as recreation areas by the Forest Service and will not be inventoried.

Virgin Areas

1. The opportunities for enjoyment of recreational activities related to outdoor education, scientific hobbies, natural history studies, plant and wildlife observation and photography should be assessed. The principal purpose of virgin areas is for study and enjoyment of the pristine environment.
2. Wherever possible, virgin areas should be representative of recognized forest types and animal communities within the various biomes (Coniferous Forest Biome, Deciduous Forest Biome, Tundra Biome, Prairie Biome, Desert Shrub Biomes).
3. Special attention should be directed toward establishing virgin areas containing forest types not represented or well represented in such categories as natural areas or nature sanctuaries.
4. In selecting virgin areas it may be well to consider that the most constant characteristic of our environment is change. The influence of man and his works cannot be eliminated and often should not be. This should not be interpreted as being unnatural. A potential virgin area can reflect the influence of man but not his disturbances.

Scenic Areas

Criteria

1. The key word in the definition of a scenic area is beauty. The experience of beauty is the experience of a certain kind of value. Scenic beauty is a somewhat nebulous and quite often changing phenomenon. It can, however, be reduced to basic components which in combinations or recombinations tend to produce in the viewer an aesthetic feeling and appreciation. The components are physiography and earth contours; geological, rock, and soil formations; trees and other vegetation; wildlife; water; sky, skyline, and clouds; effects of the elements and seasons on one or more of these.
2. Any object scene or area which has perceptual aspects as listed above, the perception or appreciation of which is pleasurable, has natural beauty or aesthetic value.
3. A combination of the components in criterion (1) plus a feeling of pleasure is essential to a scenic area.

Consideration must also be given to the fact that the components vary -- thus a canyon slope that would go unnoticed in spring or winter, would draw admiration and attention when patterned with the gold and bright reds of autumn and the dark green of conifers. A desert mountain in the shadows of evening is a scene of beauty that did not exist in the blazing flat light of midday. Many areas are noted for the presence of wildlife. Wildlife adds greatly to the scenic attraction and can be anticipated even if not always observed.

Geological Areas

Geologists from universities and other agencies should be consulted both in locating and in evaluating these areas. Professional help can be sought through members of the American Geological Institute.

Criteria

1. The geological area should contain one or more interesting or unusual geological formations. These may be quite small, as for example, a hot spring; or large and extensive such as lava flows or alpine glaciations. The following geological features should be considered in placing an area in this classification: Active glaciers; clear-cut examples of alpine or continental glaciation; volcanic formations such as thermal actions, cones, lava flows, dikes, sills, batholiths; water erosion features such as caves, canyons, natural bridges, shorelines; wind actions such as dunes, rock sculpturing; rare or interesting rocks or mineral deposits; examples of diastrophism, folds, faults, etc.; metamorphism or rock changes, fossil deposits or outcrops, petrified flora.
2. Areas where one or more geological features combine to reveal an interesting and educational story of the earth's history and development.

Archeological Areas

Archeologists from universities and other agencies should be consulted, both in locating and evaluating these areas.

Criteria

1. The area should provide clear-cut signs and evidence of use by former people and societies. Such evidence might be petroglyphs, cairns, caves, abodes, camp sites, burial mounds, collections of artifacts, etc.
2. The archeological evidence should be of definite scientific value or unusual public interest. It should serve to help both scientists and laymen better appreciate and understand past civilizations. A single rock tepee ring, scatterings of arrowheads and chippings, or a few arrowheads or spearheads at a hunting spot (ex-desert waterhole) would generally be insufficient to warrant classification unless a part of a broader representation.
3. Indication should be given as to whether the area is one that can stand public recreation use or is fragile and should be preserved largely for scientists and scholars.

Historical Areas

Historians from universities, State historical societies, and other agencies should be consulted for assistance in locating and evaluating these areas.

Criteria

1. The area should contain sites, structures, or landmarks exemplifying cultural, military, political, economic, or social history that provide insight into our American heritage.
2. Structures or sites should be associated with the lives of outstanding, interesting, or colorful historic personages; or with interesting or important past events that have left an imprint on the present.
3. Structures that are representative of a period or movement or that exemplify an unusual or lost skill are worthy of consideration.
4. There should be no doubts as to the authenticity of the area, sites, or structures. They should be firmly established as the original site, building, material, workmanship, or location.

Zones

Zones established or proposed within the scope of existing policy need not be segregated into quality classes, since their location is in fixed relationship to the feature, area, or site which they are intended to serve or protect.

They must suffice in that position regardless of quality. The condition of a zone can usually be altered through management and necessary management changes will be scheduled when the long-range program for classification of areas and development of sites is prepared as a part of forest recreation plans.

Hunting Areas

Use form No. 26 "Evaluation of Hunting Habitat and Areas" for recording information on big-game, small-game, and waterfowl hunting areas as defined under Classification of Recreation Lands. Rate identical criteria for each type of area.

Rate as hunting habitat if a general overall hunting evaluation is desired. This should be used when rating for any combination of big-game, small-game, and waterfowl hunting. The more specific evaluations treated below should be used wherever feasible.

Rate as either big-game hunting area, small-game hunting area, or waterfowl hunting area, depending upon the type of evaluation desired or indicated.

The same areas can be rated for more than one type of hunting but separate forms should be used for each evaluation.

The evaluation of hunting habitat and hunting areas should be done by the forest wildlife staff officer in close cooperation with State Fish and Game Departments and U. S. Fish and Wildlife Service personnel.

Much of the needed data can be obtained from forest records and reports, from State Fish and Game annual reports, and from Fish and Wildlife Service publications and releases. These sources will generally provide information relative to game population densities, hunter numbers, hunter success, kill statistics, crowded hunter conditions, information on seasons, size of hunting areas, management practices, and research findings.

Eleven (11) criteria to be scored have been assigned maximum ratings on a basis of their relative importance as constituent parts or characteristics of a hunting habitat or area.

The first two criteria are essential to a hunting area and thus their combined maximum rating is 10, or nearly one-fourth of the total score. The other criteria may influence (1) or (2) but also in themselves contribute to or detract from the quality of a hunting area. Different combinations of criteria ratings can thus add up to the same descriptive ratings (outstanding, good, or fair).

Game Populations -- Criterion #1

Wherever possible, base the rating on wildlife population figures or relative abundance counts -- so many animals per acre, per mile of observation, per

unit of time or actual herd or flock counts. Criterion #8, habitat condition and trend, must be automatically considered when rating this population criterion. Also use hunter kill and hunter success figures as an index to whether a game population is high, moderate, or scarce. This must be weighed along with information on the number of hunters, hunter days, length of season, size of area, etc. For example, on one waterfowl hunting area records reveal that 1.5 ducks and geese were killed per acre. The success ratio was 2 ducks per hunter day. In another area 1,768 hunters were afield with a 53 percent success. What is considered a high game population in one region or part of the country need not necessarily be considered a high one in another.

Hunter Success or Satisfaction -- Criterion #2

There is a choice of rating hunter success or hunter satisfaction for Criterion No. (2). This choice has been given because hunting success figures are not always available for a particular area nor for all species hunted. High, good, and fair hunter success figures should be established for each region on a basis of hunter success statistics. This may range from considerably lower than 18% mentioned for Michigan deer hunters to well over 100% in Montana where more than one deer per hunter is permitted.

Hunter satisfaction, when used, may have to be estimated or obtained through interview or field observation.

Environment -- Criterion #3

Rate the relative degree to which the aesthetic tone or mood of the area and its surroundings are pleasing or otherwise. Variety and abundance of the wildlife species other than those being evaluated are considered as part of the environment. For example, the opportunity to observe squirrels, wild turkeys, grouse, or woodpeckers while deer hunting adds to the enjoyment of the environment and the activity.

Accessibility -- Criterion #4

This factor is intended to evaluate the degree to which accessibility is appropriate, rather than the relative ease with which the area may be reached or traversed. It should be recognized that the overall quality of a hunting area is decreased if it is so cut up with roads that "wind-shield" hunting or other undesirable practices may occur. Adequate access may consist of roads and trails which would be unacceptable in the case of development sites, but unreasonably difficult access is a definite detracting.

Size -- Criterion #5

Small areas are subject to disturbance by strictly local influences. They tend to limit or confine a hunter and may quickly become overcrowded. Game population densities may also vary abruptly. If the quality of the area

being considered suffers by reason of small size, it should receive the lower rating.

Crowding -- Criterion #6

Crowded hunting conditions are those where hunter safety is involved, interference with good hunting technic occurs, and actual conflict arises among hunters.

Scientific Information for Management -- Criterion #7

Previous reference has been made to sources of information which can supply these data. The criterion reflects the value of scientifically gathered data for optimum management of hunting areas. Future hunting quality will be increasingly dependent upon research and the application of research findings in management.

Habitat Condition and Trend -- Criterion #8

Optimum game populations are in the long run dependent upon favorable habitat and good habitat management. High game populations, providing excellent hunting, can exist for a limited period of time even though the habitat trend is downward. Likewise plant successional changes will alter the favorableness of the habitat for different species. This criterion should be used to reflect such conditions and trends.

Terrain -- Criterion #9

Terrain and vegetative conditions may enhance some types of hunting and detract from others. Where they definitely detract from hunting, as for example elk hunting in large expanses of windfall, the lower rating should be used.

Seasons -- Criterion #10

Legally established hunting seasons, particularly those on waterfowl or migratory birds, are not always favorable to hunters of a given area. Likewise a very short season may not coincide with a game most convenient to the hunter, or a one sex hunt may be unnecessary and detract from hunter success or satisfaction. The proper harvesting of big-game species is important in maintaining quality of habitat and hence good hunting. Inadequate seasons or harvesting will ultimately affect the area and the hunter adversely.

Climate -- Criterion #11

Rate the degree to which climate during the hunting season is conducive to hunting in reasonable comfort and to permitting that proper care be given to game. Some seasons may coincide with hot weather or extremely cold or unpleasant weather. This can and does detract from the hunting enjoyment. These should be recognized in the scoring.

Fishing Waters

Use form #27, Evaluation of Fishing Waters, to record information on stream, lake, and pond fishing waters as defined under Classification of Recreation Lands. Identical criteria will be used for each.

Fishing waters and fishing areas should be evaluated by the regional and/or forest wildlife staff officer in close cooperation with State Fish and Game Department and Fish and Wildlife Service personnel.

Fish Population -- Criterion #1

Wherever possible, regional evaluators should substitute figures or specific data for generalized or descriptive terms. For example, a high fish population may be expressed as so many fish per mile of stream; or high if a known average catch of so many pounds per acre are taken per visit or per season. Creel census data will provide indicators of fish populations. However, in many instances, such data may not be available.

Another approach is to designate certain well-studied lakes, streams, or ponds as high, moderate, or low and to use these as standards of comparison for fish populations in other waters. In well-studied waters the various fish species may be expressed in terms of total pounds or by pounds of different length classes.

In many cases the evaluators will have to make a judgment decision based on their general fishing and fish-biology experience.

Environment -- Criterion #2

The word artificial as it applies to fishing environment (Criterion No. 2) means that man's works, particularly unsightly ones, are conspicuous and detract from, rather than add to the pleasantness of the environment. Some impoundments do not necessarily create an artificial environment. (See Hunting Criterion No. 3)

Size -- Criterion #3

In any two comparable areas, the one of larger size provides more spots or choice locations for any given activity and on this basis should receive a higher rating. (See Hunting Criterion No. 5).

Pollution -- Criterion #4

Where industrial or domestic pollution occurs to the extent that fish life cannot survive, or fishing is unpleasant or unsafe, rate the waters as "unsuitable" regardless of other factors. Excessive organic decomposition refers to natural accumulations such as occur in beaver ponds and bog lakes.

Water and Watersheds -- Criterion #5

This criterion expresses the effect of waterline fluctuation, whether it is the result of manipulation or from natural causes. It also expresses the management of proper land use of the watersheds.

Recreation Conflicts -- Criterion #6

A rating here denotes the effects of other recreation activities on the quality of fishing.

Season -- Criterion #7

This reflects the effect of the legally established fishing season.

Fisherman Success -- Criterion #8

Many States conduct creel censuses which express fishing success in number of fish or pounds of fish caught per trip or other unit of time. Where such data is available catch figures per trip can be used as an expression of high, good, or fair fishing success. (See table Fishing Data, column 9.) Expectation of fishing success must be based on knowledge of fish populations, water conditions, information on number of visits per person per season, number of anglers fishing one area as compared to others, etc. A rating in this category will frequently be based on the evaluators' knowledge of local fishing conditions.

Accessibility -- Criterion #9

This factor is intended to evaluate the degree to which accessibility is appropriate rather than the relative ease with which a fishing water may be reached. The overall quality may be decreased if the shore can be reached by automobile so that crowding as well as physical and aesthetic deterioration occurs. Adequate access may consist of roads or trails unacceptable in the case of development sites, but insufficient or unreasonably difficult access can be a definite detraction.

Crowding -- Criterion #10

Crowded fishing conditions are those where personal safety is involved or where interference with good fishing technique or enjoyment occurs.

Management Facts and Statistics -- Criterion #11

This reflects the value of scientifically gathered data for optimum management of fishing waters. It also expresses the value of such information for present and future evaluations. Fishing quality is tied in closely with research and management. They will take on greater importance as fishing pressure increases.

Propagation -- Criterion #12

Propagation reflects both the cost of management and the fact that fishing for naturally propagated stock is preferred by most sportsmen.

Size and Creel Limits -- Criterion #13

Size limits and creel limits favor fishing when they conform to good management practices.

Boating Waters

Use form No. 29 for evaluating boating waters. Evaluators should have wide boating experience. Mental comparisons of one area with another help in arriving at a proper rating for the criteria. A canoeist looks at a river or a lake with a different eye than does the motor boat recreationist. An asset to one may be a liability to the other.

Two classes of boating waters are recognized for purposes of evaluation. They are:

- a. Still water - Lakes or large ponds, reservoirs, extensive or expansive areas of sluggish streams and rivers.
- b. Fast or running water - Streams and rivers with a definite current, rapids, and white water.

Boating waters should be rated as one or the other of these.

The waters should also be evaluated from the standpoint of the kind or kinds of boating activities in use or contemplated. Two groups of activities with somewhat similar requirements are recognized. One or both of the activity groups (c and m) should be checked and given a final score and quality rating on form #28. If the boating water is evaluated for two groups of activities the higher score should be used to indicate the final quality evaluation of the boating water.

Condition of Water, Accessibility, and Environment -- Criteria #1, 2, 3

These criteria are similar to those used in wilderness, hunting, and fishing area evaluations.

Unique Conditions and Intangible Values -- Criterion #4

This serves to point out and give added value to unique boating areas where the intangible values are numerous. Some, but not all, will be in wild or wilderness areas.

Hazards and Obstacles -- Criterion #5

This indicates that hazards and obstacles may be either detrimental or beneficial to boating waters depending upon use. Water hyacinth in a stream or lake interferes with motor boating but rocks in rapids may add zest to canoeing.

Length and Nature of Season -- Criterion #6

Length of season should be considered, as well as other factors that are influenced by the time of use, climate, and weather.

Crowding, Conflicts, Size -- Criteria #7, 8, 9

Self-explanatory.

Shoreline Recreation Opportunities -- Criterion #10

Boating enjoyment is enhanced by shore recreation opportunities.

Fishing -- Criterion #11

Fishing is included here because it enhances most boating activities. If the same water is evaluated for fishing, use the quality rating derived on form 27, "Fishing Waters and Fishing Areas."

Mountain-Climbing Areas

Use form No. 30 for evaluating mountain-climbing areas.

Climber and Guidebook Recognition of Area -- Criterion #1

Where possible, consult skilled mountain climbers when making an evaluation of mountain-climbing areas. A list of mountain-climbing guidebooks will be prepared for reference.

Rock Quality or Condition -- Criterion #2

Rock characteristics are important to the safety and enjoyment of climbing.

Climbing Diversity -- Criterion #3

Glaciers and snow fields add diversity to climbing and demand additional climbing skills.

Climbing Difficulty -- Criterion #4

The opportunities to make new or first ascents of a peak, explore untried routes or undertake a difficult climb all add to the enjoyment and adventure of mountain climbing.

Altitude -- Criterion #5

High altitudes are generally associated with the best and most difficult climbs. Very difficult rock climbs, however, may be found at all altitudes. This criterion helps to rate the difference between mountain climbing and rock climbing. It also gives more weight to the longer climbs.

Scenery, Environment, Intangible Values - Criterion #6

This criterion recognizes that the environment affects those participating in mountain-climbing activities and thus influences the quality of the climbing experience.

Hiking and Riding Areas

Hiking and riding areas will be inventoried on form No. 31 and descriptive information recorded under comments as indicated. A quality designation based on some other area evaluation should also be recorded. If the quality of the area has not been evaluated for some other activity, give it a quality designation based on considered judgment.

Evaluate Quality of Recreation Lands

Quality ratings are primarily intended for application in preparing recreation plans and programs. They will be useful in determining the kind of development to which specific sites are best adapted and the priority to be accorded each site. In a similar manner, quality will affect the programming of wilderness or unusual interest area classifications.

The relative quality of land for recreation use must be judged as the total of all factors, on and surrounding the site or area, which affect its inherent suitability for the intended use. Although accessibility, general location, and the cost of providing access and/or water are not physical quality factors, they may have a distinct bearing on the suitability of a site or area and, therefore, must be fully considered in assigning lands to quality classes.

The significance or weight assigned to particular site or area factors will vary between regions and possibly within regions. A described set of conditions or prescription which might apply to an outstanding development site in the southwestern region, might describe an impossible or undesirable situation if applied to the southern region. The use and application of quality criteria on a regional or subregional basis and the evaluating of sites and areas within recreation categories is separately discussed under the broad classifications (1) Development Sites and (2) Dispersed-Recreation Areas.

Evaluate Quality of Development Sites

For limited purposes of the review, it is necessary only to isolate lands which meet at least minimum standards and segregate them into relative quality classes (Outstanding, Good, or Fair). The allocation of specific sites to specific kinds of recreation is a phase of planning and will be covered by separate, service-wide instructions for the preparation of

ranger district and forest recreation plans.

To segregate lands suitable for recreation development from those which are unsuitable, it is first necessary to recognize the minimum conditions or combinations of conditions which must be satisfied if an area or site is to be considered suitable. This set of conditions or frame of minimum acceptability is an application of the criteria and is graphically illustrated on the following pages.

The frame of minimum acceptability for development sites can be visualized as a line drawn at the bottom of "fair" quality in each criterion. In the occupancy group, this will be applied to the use which is least demanding with respect to that criterion, within the region or on the forest concerned. Segregation of all sites meeting these minimum requirements will yield the total acreage of land suitable for development recreation use, irrespective of demand in that location or the cost of providing access.

Forests will exclude from field examination, sites to which access by the year 2000 is not feasible or cannot be achieved at reasonable cost. Having limited examination to sites which are or by the year 2000 will be accessible, the matter of relative accessibility remains a factor in programming and planning, and is taken into account in assigning lands to quality classes.

As explained in sections entitled "Preliminary Determination of Resources Needed" and "Select Lands for Examination and Intensity of Examination," the position at which the frame of minimum acceptability is established will depend to some extent on the local relationship of demand (expressed in acres) and supply. Where the relationship is such that there would appear to be a deficit even if lands of marginal suitability were developed at high cost, the level of acceptability will be lowered to include all available lands which could be developed at justifiable cost and which the public would use if developed.

Conversely, if preliminary analysis indicates that a selection from among the highest quality lands will meet foreseeable demands the frame of minimum acceptability will be raised to exclude from field examination the sites where development costs would be high and/or those of marginal quality.

It should be noted that a single set of criteria is used for occupancy sites (camp, picnic, organization, commercial public service, and summer homes). For convenience, observation sites are included in this group. A second set of criteria is used for water front sites (swimming and boating) and a third set for winter sports. The discussion here is directed particularly toward the occupancy group but the principles apply equally to waterfront and winter-sports sites.

In the case of occupancy sites, the field examiner will not know to which type of recreation the site will be allocated. However, the suitability requirements are such that a site suitable for a specific use, such as camping, will be suitable for any or all types in the group, but in

Frame of Minimum Acceptability - Development Sites
(Hypothetical Examples)

Drawn to exclude sites which are not worth field examination, or if examined, to be eliminated from data analyzed

OCCUPANCY SITE

<u>Criterion</u>		1	2	3	4	5	6	7	8	9	10	<u>Minimum Acceptable Condition</u>
Attraction	A											Unusual scenery
Climatic Relief	B											0 - 5° F.
Forest Environment	C											Detractions substantial
Terrain	D											20 - 30% slope /but permeable
Soil	E											Stable, fairly fertile, thin /
Shade or Shelter	F											Shade less than 10%
Cover	G											Planting feasible
Domestic Water	H											Available at high cost

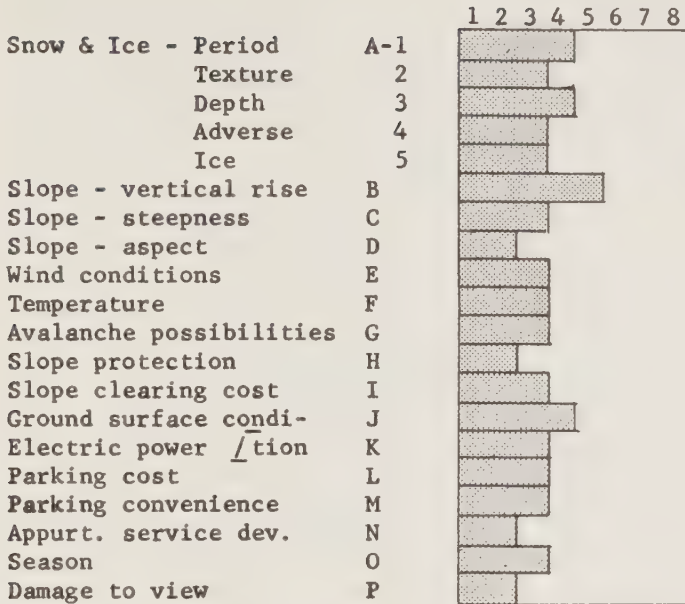
SWIMMING SITE

		1	2	3	4	5	
Water Temperature	A						68 - 73° F.
Fluctuation	B						Major-detracts less than ½ season
Shoreline-first 50' +	C						Timbered
Bottom to 5' depth	D						Gravel
Distance to 5' depth	E						25' - 50'
Pollution	F						Contaminated
Color and Turbidity	G						Cloudy to murky
Wind	H						Unfavorable full season
Water Class	I						Other public

BOATING SITE

		1	2	3	4	5	
Water Temperature	A						Less than 60° F.
Fluctuation	B						Major-detracts less than ½ season
Shoreline-first 50' +	C						Rock
Bottom to 5' depth	D						Mud
Distance to 5' depth	E						50' - 100'
Pollution	F						Light pollution
Color and Turbidity	G						Muddy
Wind	H						Favorable-more than ½ season
Water Class	I						Other public

WINTER-SPORTS SITE



One month
 1/3 season dry
 1 - 2 feet
 Major problem, half season
 Satisfactory 30 days
 1000 - 1500 feet
 Majority intermediate - no
 East or west /advanced
 Frequent, high
 Below 0° F.
 Frequent possible
 Adequate
 High
 Heavy work
 Available high cost
 High cost
 Off site - long walk
 Moderate possibilities
 No summer potential
 Not serious

Quality Prescriptions - Occupancy Sites (Sample)

Degree

<u>Criterion</u>	1	2	3	4	5	6	7	8	9	10	<u>Minimum Acceptable Condition</u>
Attraction	A										Lake or reservoir - unusual scenery
Climatic Relief	B										11 - 15° F.
Forest Environment	C										Well preserved
Terrain	D										0 - 10% slope
Soil	E										Fertile, stable, deep and permeable
Shade or Shelter	F										Low shade 50 - 100%
Cover	G										Excellent
Domestic Water	H										Available at low cost

<u>Criterion</u>	1	2	3	4	5	6	7	8	9	10	<u>Minimum Acceptable Condition</u>
Attraction	A										Pond or Pool - unusual scenery
Climatic Relief	B										6 - 10° F.
Forest Environment	C										Well preserved
Terrain	D										10 - 20%
Soil	E										Stable, fairly fertile, thin but permeable
Shade or Shelter	F										High shade - 25 - 50%
Cover	G										Good
Domestic Water	H										Available at moderate cost

<u>Criterion</u>	1	2	3	4	5	6	7	8	9	10	<u>Minimum acceptable condition</u>
Attraction	A										Intermittent stream-scenery common
Climatic Relief	B										0 - 5° F.
Forest Environment	C										Detractions substantial
Terrain	D										20 - 30% slope
Soil	E										Stable, fairly fertile, thin but permeable
Shade or Shelter	F										High and low shade less than 10%
Cover	G										Planting feasible
Domestic Water	H										Available at high cost

	1	2	3	4	5	6	7	8	9	10	
A											
B											
C											
D											
E											
F											
G											
H											

Composite

▨ Frame of minimum acceptability

varying degrees of quality, cost, and priority. In the preparation of National-Forest Recreation Plans and Programs, the occupancy sites found "suitable" will be sorted on the basis of priority and more specific requirements, in order that individual sites most needed for and best adapted to a particular type of use may be so allocated and developed. As a preliminary step, the lands segregated as suitable will be sorted into Outstanding, Good, and Fair quality classes for any occupancy use. This will be accomplished by means of "quality prescriptions."

Quality Prescriptions

Sample quality prescriptions are illustrated on page 108. Essentially, these are decisions as to the same quality criteria considered in establishing the frame of minimum acceptability, refined to express relative quality. Whether devised at the regional, subregional, or forest level they must provide for separation on factors which are important where applied. For example, on forests where terrain is regular and slopes are usually less than 10%, Criterion D-Terrain is of little significance as a relative quality factor, whereas on forests where level lands are the exception it could be a key factor. A similar analogy can be cited for each criterion.

Unless a site is so located that people can and will use it, the site is not useful regardless of its physical character. Sites to which access by the year 2000 is not feasible or cannot be achieved at reasonable cost are eliminated from further consideration in establishing the frame of minimum acceptability. Relative accessibility of suitable sites will be handled as a limiting factor. The accessibility of each site will be rated Outstanding, Good, or Fair (as locally defined) and, although the physical quality rating will be made independently and will not be altered because of accessibility, the final rating (see forms #17 and 19) will not be higher than that assigned to accessibility. Thus, the relative physical rating will be a matter of record, and in the event that present or expected accessibility is altered the final rating may be adjusted accordingly.

The following accessibility guidelines are offered for consideration but should be adjusted to fit regional or local conditions:

1. Outstanding Accessibility

The site is located within reasonable distance of a current or expected source of demand. It is accessible by means of roads or water routes which exist or are planned for construction by the year 2000 at low to moderate cost.

2. Good Accessibility

The site is accessible by means of roads or water routes or by aircraft landing facilities which exist or are planned or will be planned for construction by the year 2000 at moderate to high cost.

3. Fair Accessibility

Sites which do not meet the above conditions but to which access is considered feasible for purposes of establishing the frame of minimum acceptability.

After sites are examined in the field and the data sheets have been completed, they will be mechanically graded for quality class. For this purpose, transparent (preferably acetate) templates will be prepared to fit the "summary" blocks on forms #17, 18, and 19. Lines will be drawn on the templates to correspond with the composite quality prescription for occupancy sites (see example, page 108). The template will be placed over the summary block and the indicated adjective rating will be checked in the space provided. The accessibility rating will then be determined by referring to the "Access" information on page 1 of forms #17 and 19 and the proper adjective will be checked in the space provided at the left of the summary block. The site quality and accessibility ratings will be compared and the final rating will be that assigned to site quality, unless it is higher than the accessibility rating, in which case the latter will be the final rating.

Waterfront Sites -- Special Considerations

The quality and accessibility of the site to which the waterfront site is an adjunct (See Criteria for Evaluating Quality of Recreation Lands -- Category A Development Sites, Swimming and Boating) will influence the year (1976 or 2000) in which the waterfront site will be considered suitable, and the volume of demand which it can satisfy. For example, a high-quality waterfront site on a remote lake might accommodate many visitors if overnight or camping facilities were available whereas it would only receive light use in the absence of such facilities. The amount of parking space for cars and trailers might limit the volume of use which a boating site would receive.

Separate frames of minimum acceptability and quality prescriptions should be developed for boating and for swimming sites. Each waterfront examined should be evaluated for both uses and allocated to the use or uses for which it is suitable in proportion commensurate with demand.

Evaluate Quality of Dispersed-Recreation Areas

The following general instructions are applicable to all Dispersed-Recreation Areas with the exception of Zones and Hiking and Riding Areas. The quality of zones will not be evaluated.

On forms #20 - 30, give a numerical rating to each criterion. Do not give ratings higher than the maximum indicated. Use intermediate or zero ratings for the criterion choices where the numerical value or spread is large if this expresses the value or conditions more accurately. The total score should be added and directly rated Outstanding, Good, or Fair. The maximum score given to any area cannot exceed the total of the maximum ratings for each criteria.

The numbered criteria to be scored for each type of area have been assigned maximum ratings (see Evaluation forms) on a basis of their relative importance as constituent parts or characteristics of the area being evaluated. This has been a judgment decision.

This system of evaluation recognizes the fact that quality is not determined by any one characteristic but by combinations. Two different areas can be given varied numerical criteria ratings yet both receive the same descriptive quality rating of outstanding, good, or fair.

The numerical quality ratings assigned to minimum Outstanding, Good, and Fair are only approximate or suggested ratings. They can be slightly altered by regional evaluators to fit regional conditions. This takes cognizance of the fact that the values that affect quality are relative, cannot be divorced from the human element and thus to some extent vary from place to place. The evaluation method has been made as objective as possible. In other words, most criteria pertain to the environment, to objects, to tangible phenomena that can be viewed as external and apart from self-consciousness or bias.

In some cases it has been necessary to resort in whole or part to a subjective approach where a personal slant or feeling is involved. This is necessary because many of the recreation values are themselves subjective or intangible. For example, the feeling of solitude is a recreation value that results from man's interaction with a proper type of environment. The value is a human one, and though inherent in the environment, cannot readily be objectively measured or identified.

Evaluate Wilderness-Type Areas

The evaluation of wilderness-type areas will apply to both existing and potential areas. Potential areas rating below the minimum for Fair will not be considered for inclusion in the wilderness-type classification.

Evaluate Unusual Interest Areas

The following Unusual Interest type areas will be rated on individual forms as listed below. Considered in the light of the criteria already discussed these forms should be self-explanatory.

- Form 21 - Evaluation of Virgin Areas
- Form 22 - Evaluation of Scenic Areas
- Form 23 - Evaluation of Geological Areas
- Form 24 - Evaluation of Archeological Areas
- Form 25 - Evaluation of Historical Areas

Evaluate Zones

As previously explained, zones will not be segregated into quality classes but will be inventoried as needed to protect, preserve, or enhance sites and areas in accordance with existing policy.

Evaluate Additional Dispersed-Recreation Areas

The additional Dispersed-Recreation Areas will be rated in accordance with criteria discussed under the appropriate area. All available areas which

seem to meet at least minimum requirements will be evaluated on the proper forms.

Hunting Areas - Form 26 - Evaluation of Hunting Habitat

Fishing Waters - Form 27 - Evaluation of Fishing Waters and
Fishing Areas

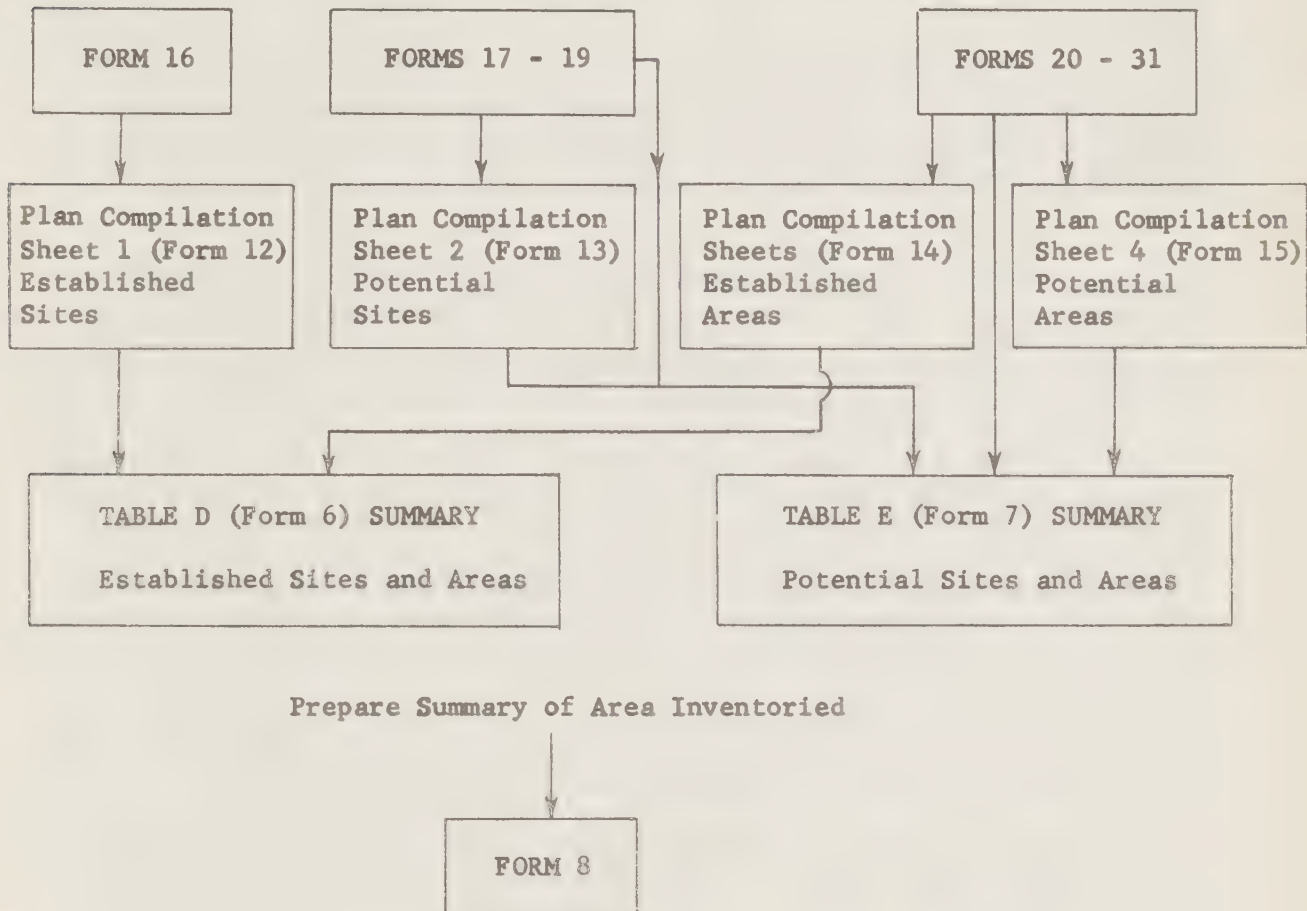
Boating Waters - Form 28 - Evaluation of Boating Waters

Mountain-Climbing Areas - Form 29 - Evaluation of Mountain-Climbing Areas

Hiking and Riding Areas - Form 31 - Inventory of Hiking and Riding Areas

Compilation of Inventory Data

When the field inventory has been completed for a unit, the quality of sites and areas evaluated and the "Administrative Review" has been made of all sites and areas, the inventory data will be compiled. The following diagram illustrates the flow of information in making the compilation:



All tables and compilations will be prepared separately for each State.

The Plan Compilation Sheets 1 through 4 (Forms 12, 13, 14, and 15) will be the basis for, and a part of, Ranger District Recreation Plans. The completion of these sheets is the main purpose of the NF-ORRR. The information on the Field Inventory Forms 16 through 31 will be listed on the Plan Compilation sheets in accordance with the instruction on these compilation sheets.

TABLE D (Form 6) is a summary of the recreation resource acres of the existing sites and areas inventoried. The acreage for each kind of recreation opportunity has been totaled on Plan Compilation sheets 1 and 3

(Forms 12 and 14). These acreages will be entered on table D (form 6) in accordance with the instructions on the back of the form.

TABLE E (form 7) is a summary of the recreation resource acres of the potential sites and areas inventoried. The acreage of suitable and available recreation resource will be taken from PLAN COMPILATION SHEETS 2 and 4 (forms 13 and 15) and entered in table E. To obtain the acres of unavailable or unsuitable resources inventoried will require a review and tabulation of the field inventory forms. (See complete instructions on table E.)

Form 8 - "Summary of Area Inventoried and Examined" will show how much of the net acreage of national-forest land has been inventoried and the extent of intensive and extensive inventory. Complete instructions are included on the form.

Segregate Sites and Areas of Unique or Unusual Recreation Opportunity

Certain recreation areas or sites on the national forests are well known nationally and even internationally because they offer unique or unusual recreation resources or opportunities.

In general, they have certain combinations of features or qualities which stimulate the senses, capture the imagination, inspire to contemplation or activity, and are long remembered as something unusual or unique. All outstanding established and potential sites and areas which have been inventoried will be reviewed to determine whether they are nationally unique or unusual. The following examples will serve as guides for judging sites and areas that might fall into this special category:

1. Big-Game Hunting: Sun River Area, R-1; North Kaibab, R-3; Thoroughfare, R-4; and Admiralty Island, R-10, and other areas famous for trophy hunting.
2. Famous fishing streams and lakes: South Fork Flathead, R-1; Upper Snake, R-4; The McKenzie and Rogue, and Umpqua, R-6; and Davidson, R-8.
3. Winter-sports areas: Aspen, R-2; Alta, R-4; Mineral King and Squaw Valley, R-5; Mt. Hood, R-6; Tuckerman Ravine, R-7.
4. Places of unusual interest: Beartooth Plateau, Mt. Evans, and Pikes Peak, R-2; Cliff Dwellings, R-3; Flaming Gorge, Snake River Canyon, and Salmon River of No Return, R-4; Mt. Shasta, and Ancient Bristlecone Pine Forest, R-5; Upper McKenzie Falls, Multomah Falls, and Mt. Hood, R-6; Mt. Washington, R-7; Joyce Kilmer Memorial Forest and Roan Mtn., R-8; Current and Eleven Point Rivers, R-9; and Tracy Arm-Fords Terror Scenic Area, Mendenhall and Portage Glaciers, R-10.

5. Highways and Trails: Beartooth Highway and Mt. Evans Road, R-2; Angeles Crest Loop, R-5; Cascade Crest Trail and Oregon Skyline Trail, R-6; and Appalachian Trail, R-7 and R-8.
6. Wilderness areas: Bob Marshall, R-1; Maroon Bells-Snowmass, South Absaroka and Glacier, R-2; Teton, R-4; Mt. Dana-Minarets and High Sierra, R-5; Three Sisters and Glacier Peak (proposed), R-6; Linville Gorge, R-8; and Boundary Waters Canoe Area, R-9.
7. Resorts: Pikes Peak Summit House (if and when built), R-2; and Timberline Lodge, R-6.
8. Campgrounds and picnic areas: Few will rate this classification but perhaps Dolly Copp, R-7, and Juniper Springs, R-8, deserve consideration.
9. Swimming areas on Lake Tahoe and along the Pacific coast in California and Oregon.

The selection of areas suitable for this category must be based on comparisons with sites and areas such as those listed and on judgment and experience. In addition, the following tests will be useful in making the selection.

Score

1. Area or site offers recreation attractions or opportunities which are:

(a) Unique from a national standpoint	1
(b) Uncommon but found elsewhere in the Nation but unique in the national-forest region	2
(c) Uncommon but found elsewhere in the region and unique in the State	3
(d) Commonly found in the Nation but unique or uncommon in the State or the local national forest	4
(e) Locally and nationally common	5
2. Attractions or opportunities are such that, if classified and/or developed or managed to maximum potential, reasonably prudent, knowledgeable, and/or discriminating persons seeking the type of recreation offered would, as primary objective:

- | | |
|---|----------|
| (a) Travel to it from all parts of the Nation | <u>1</u> |
| (b) Travel to it from all surrounding national-
forest regions | <u>2</u> |
| (c) Travel to it from adjoining States | <u>3</u> |
| (d) Travel to it from all parts of the local region | <u>4</u> |
| (e) Travel to it from local State and/or forest | <u>5</u> |

Add ratings (1) and (2) above. If total score exceeds 4, it is probable that the area or site is not unique or unusual.

Sites or areas considered to have unique or unusual characteristics will be listed by forests in table H, showing the name, site or area number, kind of site or area, acreage, and under remarks a brief statement of the reasons why it was selected.

TASK 4 - ALLOCATION OF AVAILABLE RESOURCES
AND
DETERMINATION OF SURPLUSES OR DEFICITS

Objective

National-forest recreation resources and opportunities located and described by inventory will be compared with projected demands to determine how the suitable and available lands can best be utilized to serve anticipated needs by the years 1976 and 2000. Available recreation lands suitable for particular purposes will be allocated to recreation use in proportion to public needs and consistent with the public interest.

Table B - Adjustment and Conversion of Final Projections

Final projections will be available on form 2, "FINAL PROJECTIONS OF RECREATION DEMAND," by January 1960. The projections on form 2 will be transferred to column 1, table B, "ADJUSTMENT AND CONVERSION OF FINAL PROJECTIONS," in exactly the same way as was done for table A, "ADJUSTMENT AND CONVERSION OF PROVISIONAL PROJECTIONS."

The converting factors will be entered in column 2 and multiplied by columns 1a and 1b to obtain columns 3a and 3b.

In preparing table A and comparing it with table C, adjustments were made transferring certain demands between units (districts). If these adjustments were carefully considered, they should still be generally applicable. Table B column 3 will now be compared with tables D and E and adjustments in demand between inventory units will be made in table B column 4. This will be done in the same way as for table A and using the adjustments in table A as a guide.

Columns 4a and 4b will be subtracted from columns 3a and 3b and entered as columns 5a and 5b which will constitute the "Adjusted Land Needs" to meet the projected demands in 1976 and 2000. (This is the information needed for column 1 of table F).

Columns 5a and 5b will be divided by the converting factors (column 2) to obtain column 6 (adjusted projections of demands in visitor-days).

Table F - Ranger District Compilation

This table is a summary of data at the unit (district) level and involves the distribution or allocation of available resources to meet demands.

The procedure outlined hereafter is concerned with (1) the priority of one recreation use over another and (2) the allocation of suitable lands to various types of recreation use. The end product is a balance sheet showing the adjusted allocation of lands to kinds of recreation use and the resultant surpluses or deficits.

Enter information from tables B, D, and E as shown in columns 1, 2, and 4 of table F and obtain column 3 by subtracting column 2 from column 1.

Column 5 involves the allocation of potential sites and areas to types of recreation use. This must be given careful consideration by the ranger and supervisor. At this point potential occupancy site acreage has been lumped together as a subtotal in column 4. It must now be allocated to campgrounds, picnic sites, organization camps, commercial public service sites, and summer homes as indicated by the projections of demand but consistent with public interest. Camp and picnic grounds are of high priority and recreation residence use is of low priority because it is preferential and private use. This concept will be the guide in the allocation of occupancy site acreage.

If no deficits exist and the lands in column 4 are suitable to meet all the needs of column 3, no problem exists and form F can be routinely completed by entering the required acreage in column 5 and any surplus acreage in column 6.

If any acreage in column 4 is less than the corresponding acreage in column 3 or if each item A-1-5 cannot be satisfactorily met by the acreage listed in subtotal A-1-5, then it will be necessary to consider the priority of one recreation use over another.

Since a surplus in 1976 may become a deficit in 2000, it is essential that the year 2000 column be considered first. It would be unwise, for example, to use a surplus of campground land in 1976 for a deficit in summer homes when a deficit appears in campgrounds for 2000.

All lands of acceptable quality have been lumped together in column 3 so it is not possible at this point to specifically allocate the highest quality lands to the highest priority uses. Such allocation is assumed, however, because it will be done in preparing recreation plans from the inventory of sites and areas.

Column 6 - Enter here any surplus which appears after column 3 has been satisfied from the acreage listed in column 4. Temporary surpluses may appear in the 1976 column where certain lands are not needed until the year 2000. Since the priority of recreation uses must be considered on a long-term basis, it may sometimes be good land use to allocate, for example, outstanding recreation land needed for picnic areas in 2000 to a lesser priority use during the interim. This must not be done, however, unless it is certain that the land can be recaptured for the high priority use when needed.

Particular care must be taken to avoid concessions or summer homes on lands which will be needed later for higher uses because it is well known that serious difficulties are often encountered in terminating special use permits regardless of termination clauses in the permits.

Column 7, Deficit - Enter here any deficits which appear after column 3 has been satisfied insofar as possible from the acreage listed in column 4.

Column 8 - Total Area Allocated to Meet Recreation Demand (Established and Potential).

Add established sites and areas (column 2) to potential sites and areas as allocated (column 5) to show totals as of 1976 and 2000.

Table G - Summary of NF-ORRR

Table G will be prepared at the forest level as a summary of districts; at the regional level as a summary of forests; and in the Washington Office as a summary of regions.

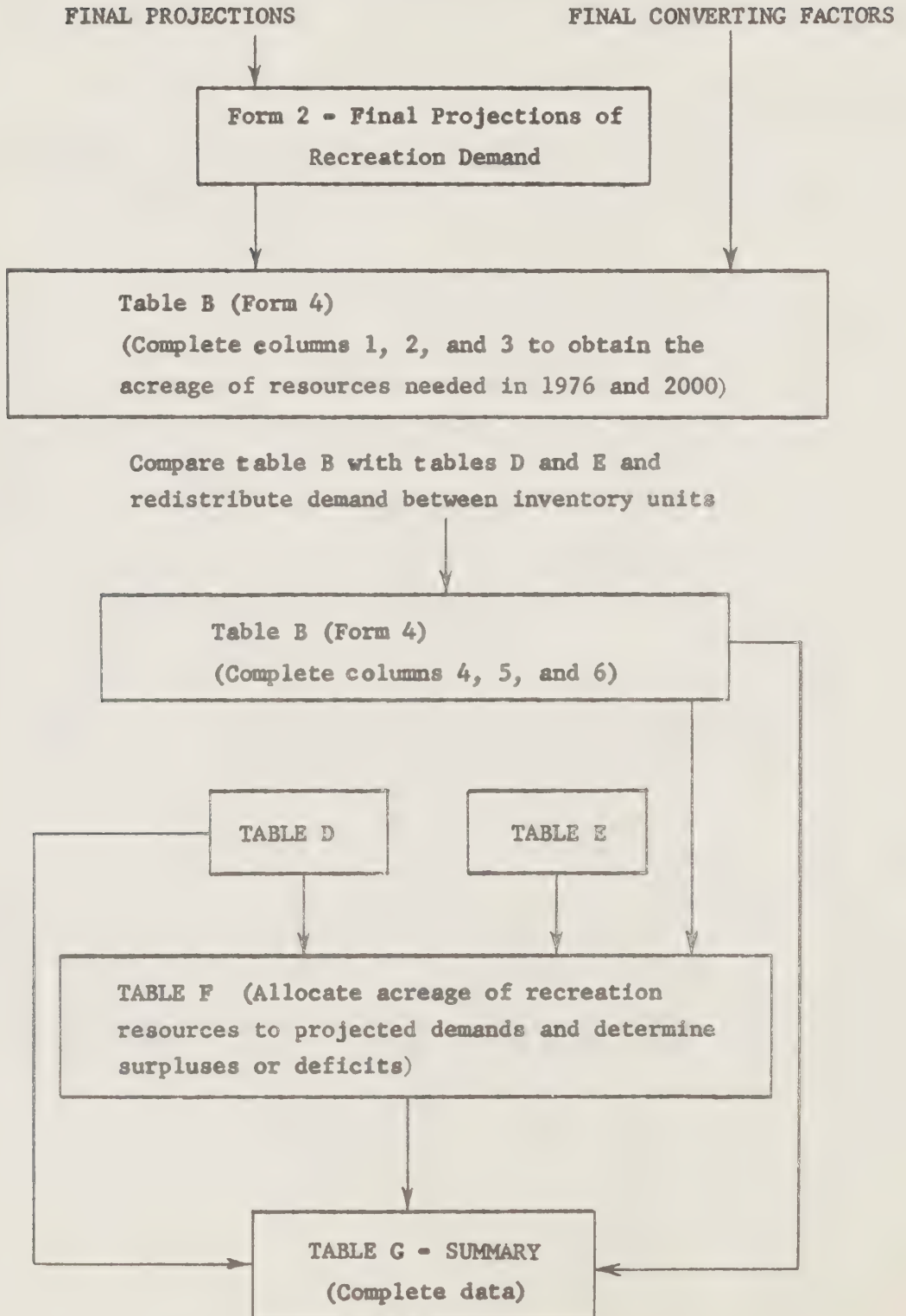
For the inventory unit the table is a compilation of data derived from tables B, D and F, and plan compilation sheets 1, 2, 3, and 4. With instructions which are a part of the table, it should be self-explanatory. For forests, State, region, and Forest Service summaries it is a compilation of the forms G submitted by districts, forests, and regions. Regions, when reviewing forest summaries, may find it possible and desirable to offset certain deficits occurring on one forest with surpluses on another. These opportunities will be limited to uses which attract visitors from considerable distances. In such cases, regions will adjust projected demand, allocation of acreage and resultant surplus and deficit entries. Regions will advise forests of these changes by memorandum. Forests will attach a copy of the memorandum to table G and changes will be considered when preparing Forest Recreation Plans, but table G need not be altered.

To a more limited extent adjustments may be made between regions with the approval of the Washington Office.

Remaining deficits shown in table G, which could not be offset by surpluses at the forest or regional level or between regions, remain as real deficits. Surpluses carried forward indicate lands inventoried and in surplus to local projected demands but not surplus to overall forest, regional, or Forest Service demands. Because of the location of such surplus lands in relation to the demands, they cannot be used to offset the reported deficits.

Summary of Task 4

Following is a graphic illustration of the flow of information in Task 4



TASK 5 - ANALYZE AND INTERPRET FINDINGS OF THE INVENTORY

Review Data

Forests and regions will review the inventory balance sheets and inventory summaries to obtain both a local and overall picture of the future recreation situation within the region. The data will show the kind and quality of recreation resources, the geographic relationship between the kinds of available recreation resources and demands, and the extent to which these demands can be met in 1976 and 2000.

Review Present Programs and Policies

The present recreation programs and policies, as well as other Forest Service programs and policies which affect recreation, will be analyzed in the light of the data and findings provided by the review.

All recreation management policies as described in the following manual references will be reconsidered in light of the inventory data:

(FSM 2302)
(FSM 2312.1)
(FSM 2321.2)
(FSM 2322.2)
(FSM 2323.2)
(FSM 2331.2)
(FSM 2332.2)
(FSM 2333.2)
(FSM 2334.2)
(FSM 2335.2)

Forest Service land exchange policies and other Forest Service policies which may be affected by the inventory data will be studied.

Make Recreation Program Recommendations

The analysis of inventory data and the review of present programs and policy will result in certain conclusions. These will be stated as recommendations by regions and will be amplified with supporting reasons. The Chief will consider these recommendations and make recommendations for the Forest Service. Recommendations will be made for the following:

Modification of Present Policies

If present policies are not adequate to meet our recreation responsibilities, recommend modifications.

New Policies

If new policies are indicated they will be recommended.

Developments and Services Needed

The inventory data will be the basis for a program of developments, services, management and area classification needed to protect, develop and administer these resources for public use.

A two-part development and services program will be prepared first for the year 1976 and second for the year 2000.

Part 1 will include developments and services to be furnished by the government as follows:

1. The total facilities to be developed.
2. The type, standard, and quality of facilities to be developed in the future. (This should be reviewed and coordinated by the Washington Office prior to making program cost estimates).
3. The services to be furnished. We should for this item in the program be far more imaginative in our thinking of interpretive services for public recreation use.
4. A dollar estimate requirement for 1 and 2 above in the same form as prepared for Operation Outdoors.

Part 2 will be a summary of the recreation facilities and services which need to be developed by private or other capital on national-forest lands.

A recommended program of area classification will be prepared in light of the needs indicated in the review of inventory data and the policy for classification of such areas.

Research Needed

Preparation of the Work Plan has indicated the lack of much information which research could provide. In making the inventory other research needs will be apparent. Regions and research stations will recommend the research projects needed in the field of recreation.

Procedure for Keeping the Review Current

The Review will be only as valuable as it reflects the best available current information. As conditions change and new or better information is obtained the Review must be kept up to date if it is to retain its value.

Recommendations for keeping the Review current should include methods of how best to do this, intervals and dates when inventory and revised projections should be reassessed. Cost estimates should accompany these recommendations.

Prepare Report

Each region will prepare a report for the region, keeping data separate by States. Forests will furnish report information as requested by regions. The Washington Office will prepare a report for the Forest Service. These reports will include: (1) a summary of inventory data by States and regions; (2) a balance sheet of recreation resources and projected recreation demands by States and regions; (3) an analysis of these balance sheets and; (4) program recommendations. Regions will submit their report in duplicate. Regional reports will be strictly for in-Service use.

Summary of Inventory Data

The summary of inventory data for regions will include the following forms on which inventory data will be reported by States within the region and a total for the region:

FORM 8 - SUMMARY OF AREAS INVENTORIED AND EXAMINED

TABLE G - SUMMARY OF NF-ORRR

TABLE H - SITES OR AREAS OF SUPERLATIVE QUALITY

The Washington Office will combine the State summaries for States which lie in more than one region and also compile a total Forest Service summary of each of these forms.

Analysis of Summary Data

The regions analysis of table G will be set down point by point and included as a part of the report. The Washington Office analysis of the Forest Service table G will be a part of the Forest Service report.

Program Recommendations

The regions program and policy recommendations will be a part of their report, and the Forest Service program and policy recommendations will be a part of the Forest Service report.

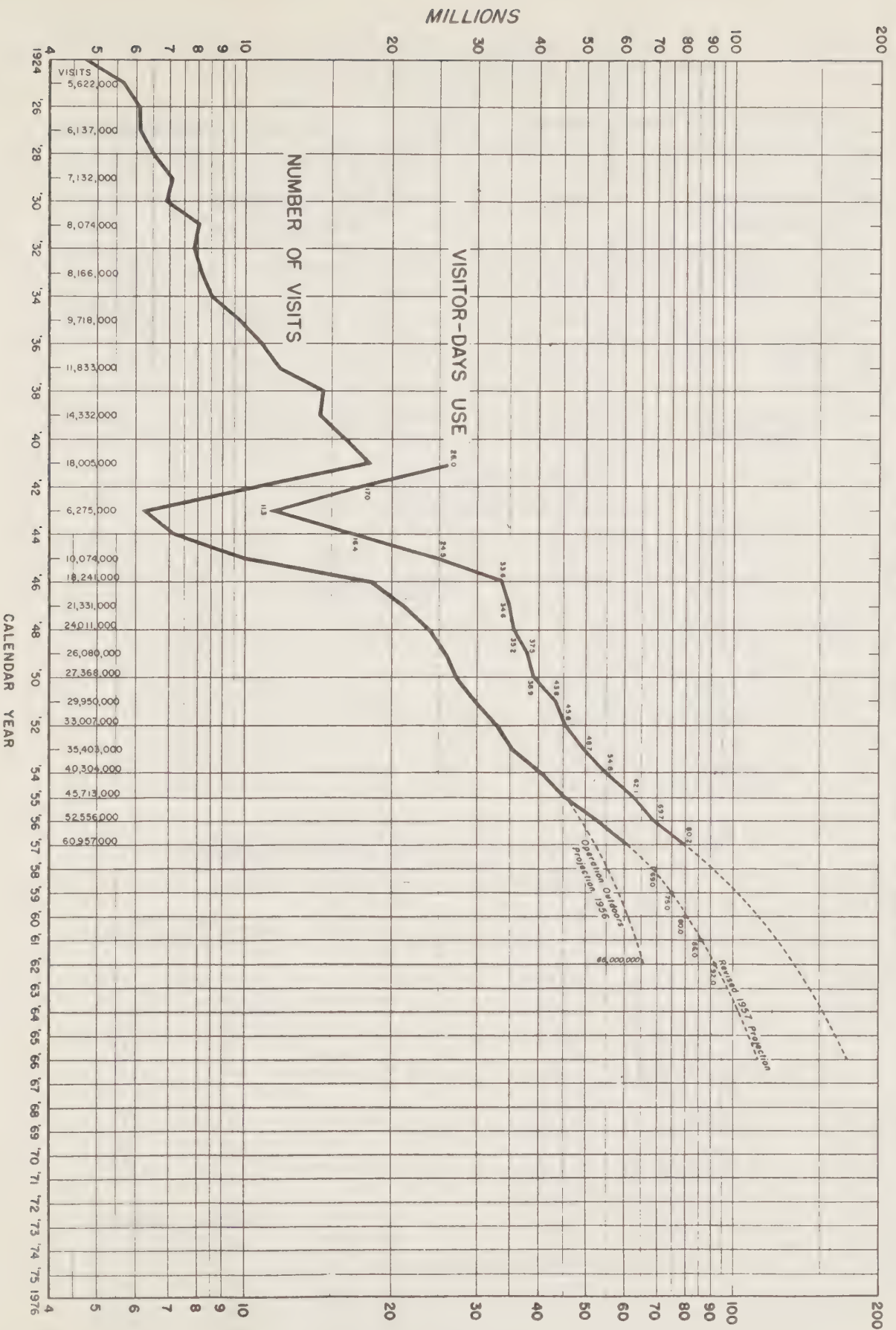
APPENDIX

FOR

THE NATIONAL FOREST OUTDOOR RECREATION RESOURCES REVIEW

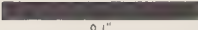
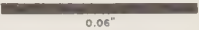









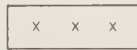
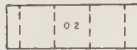
WORK PLAN

RECREATION USE ON THE NATIONAL FORESTS



















MAP LEGEND

NATIONAL FOREST OUTDOOR RECREATION RESOURCE REVIEW

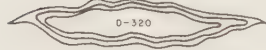




	FOREST BOUNDARY		RANGER DISTRICT BOUNDARY
	NATIONAL, STATE OR PROVINCE LINE		COUNTY LINE
	WITHDRAWALS EXCEPT E. O. 10355 (NAME AND KIND IN BLACK INK)		ALIENATED LANDS (PRIVATE, STATE OR NATIONAL PARKS AND MONUMENTS, INDIAN RESERVATIONS, ETC.)
	E. O. 10355 WITHDRAWALS		VALID MINING CLAIMS EXCLUDED FROM INVENTORY
	LAND NOT AVAILABLE FOR RECREATION USE		UNSATISFACTORY UNATTRACTIVE INACCESSIBLE EXTREME FIRE HAZARD FLOOD PLAIN, ETC.
	RECREATION USE LIMITED BY MULTIPLE-USE-MANAGEMENT DIRECTION		LAND AVAILABLE - IN PROCESS OF EXCHANGE (BOUNDARY AND SYMBOL IN PENCIL)
	MUNICIPAL WATERSHED, EXPERIMENTAL FOREST OR ADMINISTRATIVE SITE (NAME WITHIN AREA) SEE ADM. SITE SYMBOL		






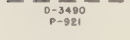
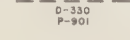
RECREATION AREAS AND ZONES

EXISTING - SOLID COLOR POTENTIAL - CROSSHATCHED WITH COLOR
USE EAGLE PRISMACOLOR OR DIXON THICK-LEAD COLORED PENCILS (BOTH NUMBERS ARE SHOWN)













EXISTING	POTENTIAL		EXISTING	POTENTIAL	
		WILDERNESS, WILD AND PRIMITIVE AREAS			GEOLOGICAL AREAS
		ROADLESS AREAS			ARCHEOLOGICAL AREAS
		VIRGIN AREAS			HISTORICAL AREAS
		SCENIC AREAS			NATURAL AREAS

EXISTING	POTENTIAL	
		ROADSIDE ZONE - RZ
		TRAILSIDE ZONE - TZ
		WATERFRONT ZONE - WZ
		(SHOW KIND OF ZONE & NUMBER)

	NATURAL LAKES
	IMPOUNDMENTS
	COMMERCIAL OR MUNICIPAL AIRPORT OR HELIPORT
	AUXILIARY AIRPORT OR HELIPORT
	ADMINISTRATIVE SITE

HARD SURFACE	GRAVEL SURFACE	
		EXISTING ROADS
		PLANNED ROADS
		EXISTING TRAILS
		PROPOSED TRAILS

RECREATION SITES

DEVELOPED		POTENTIAL	
SITE NUMBER IN LOWER HALF	1960 COLOR SOLID	SITE NUMBER IN LOWER HALF	1976 COLOR - UPPER HALF
RED D-3490 P-921		CAMP OR PICNIC SITE	
ORANGE D-324 P-918		ORGANIZATION SITE	
BROWN D-343 P-944		RESORT OR SERVICE SITE	
YELLOW D-353 P-916		RECREATION RESIDENCE SITE	
BLUE D-320 1/2 P-905		WINTER SPORTS SITE	
RED D-321 1/2 P-924		OBSERVATION SITE	
VIOLET D-323 P-932		SWIMMING SITE	
GREEN D-325 P-911		BOATING SITE	



MAP OVERLAY LEGEND
NATIONAL FOREST OUTDOOR RECREATION RESOURCE REVIEW

———— R ————— R ————— FEDERAL OR STATE GAME REFUGE

———— W ————— W ————— WILDLIFE MANAGEMENT AREAS

—— H —— —— H —— HUNTING AREAS

—— F —— —— F —— FISHING AREAS

—— B —— —— B —— BOATING AREAS

—— HR ————— HR —— HIKING AND RIDING AREAS

—— MC ——— ——— MC —— MOUNTAIN CLIMBING AREAS

FIELD EXAMINATION OVERLAY MAP

Forest _____

Site Number 124

Inventory Unit _____

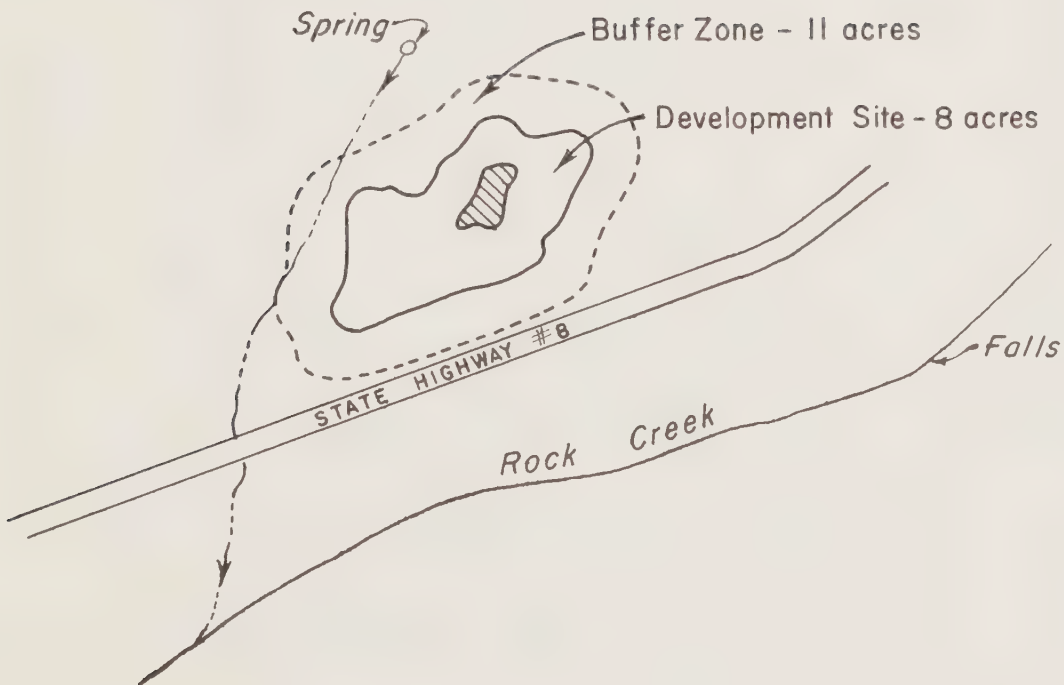
Kind of Site Occupancy

Name of Site Rock Falls

-28-57

BCB-20-13

+ Jibe Point



+
Jibe Point

Index of Forms

	NFORRR
Provisional Projections of Recreation Demand	Form <u>1</u>
Final Projections of Recreation Demand	Form <u>2</u>
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Table B - Adjustment and Conversion of Final Projections	Form <u>4</u>
Table C - Lands to be Examined and Intensity of Examination	Form <u>5</u>
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Summary of Areas Inventoried and Examined	Form <u>8</u>
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District Recreation Plan Compilation Sheet 1 (Inventory of Established Development Sites)	Form <u>12</u>
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District Recreation Plan Compilation Sheet 3 (Inventory of Established or Classified Dispersed Recreation Areas)	Form <u>14</u>
District Recreation Plan Compilation Sheet 4 (Inventory of "Potential" Dispersed Recreation Areas)	Form <u>15</u>

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Field Inventory - Potential Development Sites	Form <u>17</u>
Field Inventory - Potential Waterfront Development Sites	Form <u>18</u>
Field Inventory - Potential Development Sites (Winter Sports)	Form <u>19</u>
Field Inventory - Evaluation of Wilderness, Wild and Roadless Areas	Form <u>20</u>
Field Inventory - Evaluation of Virgin Areas	Form <u>21</u>
Field Inventory - Evaluation of Scenic Areas	Form <u>22</u>
Field Inventory - Evaluation of Geological Areas	Form <u>23</u>
Field Inventory - Evaluation of Archeological Areas	Form <u>24</u>
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Field Inventory - Evaluation of Fishing Waters	Form <u>27</u>
Field Inventory - Evaluation of Boating Waters	Form <u>28</u>
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Field Inventory of Roadside, Trailside, Waterfront Zones	Form <u>30</u>
Field Inventory of Hiking and Riding Areas	Form <u>31</u>

PROVISIONAL PROJECTIONS OF RECREATION DEMAND

State _____ National Forest _____

Ranger District or LUP _____

	Visits			Visitor-days		
	1966	1976	2000	1966	1976	2000
<u>Allocation by area class</u>						
1. Campgrounds						
2. Picnic Sites						
3. Winter Sports Sites						
4. Organization camps						
5. Hotels and resorts						
6. Recreation-residence:						
7. Wilderness						
8. Other						
Total for the forest:						
<u>Partial allocation by purpose-of-visit class</u>						
1. Hunting						
2. Fishing						
3. Boating						
4. Swimming						
5. Hiking and riding						
Total purpose-of-visit classes						

FINAL PROJECTIONS OF RECREATION DEMAND

State _____ National Forest _____

Ranger District or LUP _____

	Visits			Visitor-days		
	1966	1976	2000	1966	1976	2000
<u>Allocation by area class</u>						
1. Campgrounds						
2. Picnic Sites						
3. Winter Sports Sites						
4. Organization camps						
5. Hotels and resorts						
6. Recreation-residence						
7. Wilderness						
8. Other						
Total for the forest						
<u>Partial allocation by purpose-of-visit class</u>						
1. Hunting						
2. Fishing						
3. Boating						
4. Swimming						
5. Hiking and riding						
Total purpose-of-visit classes						

TABLE A
ADJUSTMENT AND CONVERSION OF PROVISIONAL PROJECTIONS

Region	State	Forest		Ranger District		(or IU Project)	
		(1)	(2)	(3)	(4)	(5)	(6)
		Projections (Visitor Days) (a) 1976 (b) 2000	Converting Factor Used	Acres Needed to Meet Projected Demand (Acres) (a) 1976 (b) 2000	Adjustment in Acres Plus or Minus (Show Minus in ()) (a) 1976 (b) 2000	Adjusted Needs in Acres. Col. (3) Plus or Minus Col. (4) (a) 1976 (b) 2000	Adjusted Projections (Visitor Days) Column (5) + Column (2) (a) 1976 (b) 2000
A-DEVELOPMENT REC. AREAS & SITES							
1. Campgrounds							
2. Picnic Sites							
3. Organization Sites							
4. Com. Pub. Service Sites							
5. Recreation Resident Sites							
Subtotal Occupancy Sites, 1-5 Incl.			xxxx				
6. Swimming Sites							
7. Boating Sites							
8. Winter Sports Sites							
Total Development Sites			xxxx				
B-DISPERSED RECREATION AREAS							
1. Wilderness Type Areas							
2. Unusual Interest Areas							
3. Hunting Areas							
4. Fishing Areas							
5. Boating Areas							
6. Hiking & Riding Areas							
Total - Areas			xxxx	xxxx	xxxx	xxxx	xxxx
Total All Areas & Sites			xxxx	xxxx	xxxx	xxxx	xxxx
C-UNALLOCATED USES							
Total Projections			xxxx	xxxx	xxxx	xxxx	xxxx

TABLE B
ADJUSTMENT AND CONVERSION OF FINAL PROJECTIONS

Region _____ State _____ Forest _____ Ranger District _____ (or LU Project) _____		(1)		(2)		(3)		(4)		(5)		(6)	
		Projections (Visitor Days)		Converting Factor Used		Acres Needed to Meet Projected Demand (Acres)		Adjustment in Acres Plus or Minus (Show Minus in ())		Adjusted Needs in Acres. Col. (3) Plus or Minus Col. (4)		Adjusted Projections (Visitor Days) Column (5) 4 - Column (2)	
		(a) 1976	(b) 2000			(a) 1976	(b) 2000	(a) 1976	(b) 2000	(a) 1976	(b) 2000	(a) 1976	(b) 2000
A-DEVELOPMENT REC. AREAS & SITES													
1. Campgrounds													
2. Picnic Sites													
3. Organization Sites													
4. Com. Pub. Service Sites													
5. Recreation Resident Sites													
Subtotal Occupancy Sites, 1-5 Incl.				XXXX									
6. Swimming Sites													
7. Boating Sites													
8. Winter Sports Sites													
Total Development Sites				XXXX									
B-DISPERSED RECREATION AREAS													
1. Wilderness Type Areas													
2. Unusual Interest Areas													
3. Hunting Areas													
4. Fishing Areas													
5. Boating Areas													
6. Hiking & Riding Areas													
Total - Areas				XXXX		XXXX		XXXX		XXXX		XXXX	
Total All Areas & Sites				XXXX		XXXX		XXXX		XXXX		XXXX	
C-UNALLOCATED USES													
				XXXX		XXXX		XXXX		XXXX		XXXX	
Total Projections				XXXX		XXXX		XXXX		XXXX		XXXX	

INSTRUCTIONS FOR THE USE OF TABLE C

- General: Use a separate sheet or sheets for each recreation category as follows: Occupancy site, swimming site, boating site, winter sports site, observation site, and each type of dispersed recreation area i.e., wilderness, scenic, hunting, etc.
- Column 1 Enter map or photo key number of sites and areas selected for examination.
- Column 2 Total estimated usable acres in site or area.
- Column 3 Check required intensity of examination (See "Inventory Procedure"). Use "Remarks" column for specific comments on intensity of field examination.

TABLE D
ESTABLISHED SITES AND AREAS
(Inventory Data Summary)

Region _____ State _____ Forest _____ District _____ (or IU Project _____)

	Col. 1	Col. 2	Col. 3		
	Existing (acres) 7/1/60	Planned adjust- ments (acres)	Total after adjustment (acres)		
		By 1976	1977- 2000	1976 (Col. 1 minus Col. 2(a))	2000 (Col. 1 minus Col. 2(a) & 2(b))
		(a)	(b)	(a)	(b)
A. Development Sites					
1. Campgrounds					
2. Picnic Grounds					
3. Organization Sites					
4. Com. Pub. Serv. Sites					
5. Summer Homes					
Subtotal Occupancy Sites (1-5)					
6. Swimming Sites					
7. Boating Sites					
8. Winter Sports Sites					
9. Observation Sites					
Total (1-9)					
B. Dispersed Recreation Areas					
1. Wilderness Areas*					
2. Wild Areas**					
3. Roadless Areas					
Subtotal Wilderness Type (1-3)					
4. Virgin Areas					
5. Scenic Areas					
6. Geological Areas					
7. Archeological Areas					
8. Historical Areas					
Subtotal Unusual Interest Areas (4-8)					
9. Roadside Zones					
10. Trailside Zones					
11. Waterfront Zones					
12. Buffer Zones					
Subtotal Zones (9-12)					
13. Big Game Hunting Areas					
14. Small Game Hunting Areas					
15. Waterfowl Hunting Areas					
Subtotal Hunting Areas (13-15)					
16. Cold Water Fishing Areas					
17. Warm Water Fishing Areas					
Subtotal Fishing Areas (16-17)					
18. Still Water Boating					
19. Fast Water Boating					
Subtotal Boating (18-19)					
20. Mountain Climbing Areas					
21. Hiking & Riding Areas					

*Includes established primitive areas of 100,000 acres or more.

**Includes established primitive areas of less than 100,000 acres.

INSTRUCTIONS - TABLE D

- Column 1 For development sites, except winter sports, enter Column 9(c) from Recreation Plan Compilation sheet 1.
For winter sports site enter Column 9(b) from sheet 1.
Acres of Buffer Zone, Column 10 on sheet 1 for all development sites will be entered opposite line B-12, "Buffer Zones."
For Dispersed Recreation Areas enter Column 3 from Plan Compilation sheet 3.
- Column 2 For Development sites enter Columns 4(a) and (b) from Plan Compilation sheet 1.
For Dispersed recreation Areas enter Columns 5(a) and (b) from Plan Compilation sheet 3.

TABLE E
POTENTIAL SITES AND AREAS
(Inventory Data Summary)

Region _____ State _____ Forest _____ District _____ (or IU Project) _____

	Col. 1 Total Examined (acres)	Col. 2 Examined & Excluded		Col. 3 Net Area Available & Suitable	
		Unsuit- able (acres) (a)	Unavail- able (acres) (b)		
				1976 (acres) (a)	2000 (acres) (b)
A. Development Sites					
1-5 Occupancy Sites					
6 Swimming Sites					
7 Boating Sites					
8 Winter Sports Sites					
9 Observation Site					
Total Development (1-9)					
B. Dispersed Recreation Areas					
1. Wilderness Areas					
2. Wild Areas					
3. Roadless Areas					
Subtotal Wilderness Type (1-3)					
4. Virgin Areas					
5. Scenic Areas					
6. Geological Areas					
7. Archeological Areas					
8. Historical Areas					
Subtotal Unusual Interest Areas (4-8)					
9. Roadside Zones					
10. Trailside Zones					
11. Waterfront Zones					
12. Buffer Zones					
Subtotal Zones (9-12)					
13. Big Game Hunting Areas					
14. Small Game Hunting Areas					
15. Waterfowl Hunting Areas					
Subtotal Hunting Areas (13-15)					
16. Cold Water Fishing Areas					
17. Warm Water Fishing Areas					
Subtotal Fishing Areas (16-17)					
18. Still Water Boating					
19. Fast Water Boating					
Subtotal Boating (18-19)					
20. Mountain Climbing Areas					
21. Hiking & Riding Areas					

INSTRUCTIONS - TABLE E

- Column 1** Equals the sum of Columns 2(a), 2(b), and 3(b). This column will therefore be completed after entries have been made in Columns 2 and 3.
- Column 2** Completed Field Inventory Forms for potential sites and areas will have been sorted by kinds and by quality classes for listing on Plan Compilation Sheets 2 and 4. In this process Field Inventory Forms for unsuitable or unavailable sites and areas will have been segregated. The acreage of unsuitable and unavailable sites and areas will be separately totalled by the categories in Table E, and these totals will be entered in Table E, Columns 2(a) and 2(b).
- Column 3** Total (net) acreage of suitable and available sites and areas is a summary of applicable totals derived from Recreation Plan Compilation sheets 2 and 4. Note that acres of buffer zone for all development sites, Columns 3(i) and 3(j) of sheet 2 are entered opposite line B-12 "Buffer Zones" in Table E.
- Column 3(a)** For development sites, except winter sports, enter Column 3(d) from Plan Compilation sheet 2. For winter sports sites enter only ski terrain acres Column 3(c), sheet 2. For dispersed recreation areas enter Column 3(a) from Plan Compilation sheet 4.
- Column 3(b)** For development sites except winter sports enter total of Columns 3(a) / 3(h) from Plan Compilation sheet 2. For winter sports enter total of Columns 3(c) / 3(g) from sheet 2.
- For dispersed recreation areas enter Column 3(c) from Plan Compilation sheet 4.

SUMMARY OF ACREAGE INVENTORIED AND EXAMINED

Region _____ Forest _____

Line		(Acres)	(Acres)
1.	Net area of inventory unit	_____	_____
2.	Area where all recreation use will be excluded (Subtract)	_____	_____
3.	Area of N. F. Administered land examined	_____	_____
4.	Area intensively examined (Subtract)	_____	_____
5.	Area extensively examined	_____	_____

Line 1 - Net area of Forest lands and other lands administered by the Forest Service.

This figure for national forests will be obtained from the "Total" column

"N.F. lands and other lands administered by the Forest Service" in the

U.S. Government Printing Office document "NATIONAL FOREST AREAS" June 30,

"It will be necessary for Regions and Forests to 1960, complete line 1 (acres) based upon the Region's National Forest Areas, Form 446 report, which is submitted to Washington as a basis for compiling the June 30, 1960 National Forest Areas document."

Line 2 - This area will be obtained by computing the acreage from the inventory unit maps showing lands where all recreation use will be excluded.

Line 3 - The area will be obtained by subtracting Line 2 from Line 1 and will be the area examined intensively and extensively.

Line 4 - The area intensively examined has been computed on Tables D and E (Col. 1, Total lines 1-9) for each inventory unit. Enter here the sum of these two figures for all units on the forest.

Line 5 - This area will be obtained by subtracting line 4 from line 3.

TABLE F - RANGER DISTRICT COMPILATION

NFORR Form No. 9

Region _____ State _____ Forest _____ District _____ or L.U. Project _____

Compiled by _____ Date _____ ; Approved by _____ Date _____

TYPE OF SITE OR AREA	(1) PROJECTED DEMAND CONVERTED TO AREA REQUIRED (TABLE B, COL. 5)		(2) ESTABLISHED SITES AND AREAS (TABLE D, COL. 3a, 3b)		(3) ADDITIONAL LANDS NEEDED TO MEET PROJECTED DEMAND (COL. 1 MINUS COL. 2)		(4) POTENTIAL SITES AND ACRES AVAILABLE (TABLE E, COL. 3a, 3b)		(5) ALLOCATION OF POTENTIAL SITES AND AREAS TO TYPES OF RECREATION USE (ON PRIORITY BASIS, DISTRIBUTE COL. 4 TO SATISFY COL. 3)		(6) SURPLUS (EXCESS AVAILABLE BY BROAD REC. CLASS) (COL. 4 MINUS COL. 5)		(7) DEFICIT (TYPES OF USE FOR WHICH DEMAND WILL NOT BE SATISFIED) (COL. 3 MINUS COL. 5)		(8) TOTAL AREA ALLOCATED TO MEET RECREATION DEMAND (ESTABLISHED AND POTENTIAL) (COL. 2 PLUS COL. 5)	
	ACRES 1976 (a)	ACRES 2000 (b)	ACRES 1976 (a)	ACRES 2000 (b)	ACRES 1976 (a)	ACRES 2000 (b)	ACRES 1976 (a)	ACRES 2000 (b)	ACRES 1976 (a)	ACRES 2000 (b)	ACRES 1976 (a)	ACRES 2000 (b)	ACRES 1976 (a)	ACRES 2000 (b)	ACRES 1976 (a)	ACRES 2000 (b)
A-DEVELOPMENT RECREATION SITES																
1. Campgrounds							X X X X	X X X X			X X X X	X X X X				
2. Picnic Sites							X X X X	X X X X			X X X X	X X X X				
3. Organization Sites							X X X X	X X X X			X X X X	X X X X				
4. Com. Pub. Service Sites							X X X X	X X X X			X X X X	X X X X				
5. Summer Home Sites							X X X X	X X X X			X X X X	X X X X				
Subtotal Occupancy Sites (1-5)																
6. Swimming Sites																
7. Boating Sites																
8. Winter Sports Sites																
9. Observation Sites	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
Total Development Sites (1-9)																
B-DISPERSED RECREATION AREAS																
1. Wilderness Type																
2. a. Virgin Areas	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
b. Scenic Areas	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
c. Geological Areas	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
d. Archeological Areas	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
e. Historical Areas	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
Subtotal Item 2, Unusual Int.																
3. a. Roadside Zones	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
b. Trailside Zones	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
c. Waterfront Zones	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
d. Buffer Zones	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
Subtotal Item 3	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
4. a. Big Game Hunting Areas	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
b. Small Game Hunting Areas	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
c. Waterfowl Hunting Areas	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
Subtotal Hunting																
5. a. Cold Water Fishing	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
b. Warm Water Fishing	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
Subtotal Fishing																
6. a. Still Water Boating	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
b. Fast Water Boating	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
Subtotal Boating																
7. Mountain Climbing Areas	X X X X	X X X X			X X X X	X X X X					X X X X	X X X X	X X X X	X X X X		
8. Hiking and Riding Areas																

TABLE G - SUMMARY OF NFORRR
DISTRICT; STATE; FOREST; REGIONAL; OR FOREST SERVICE SUMMARY; (delete four)

Region _____ State _____ Forest _____ L.U. Project _____
Compiled by _____ Date _____; Approved by _____ Date _____

TYPE OF SITE OR AREA	(1)		(2)		(3)						(4)		(5)		(6)		(7)		(8)					
	TOTAL PROJECTED DEMAND		PROJECTED DEMAND CONVERTED TO AREA REQUIRED		ESTABLISHED SITES AND AREAS			POTENTIAL SITES AND AREAS AVAILABLE		TOTAL ESTABLISHED AND POTENTIAL		TOTAL AREA ESTABLISHED AND POTENTIAL ALLOCATED TO MEET RECREATION DEMAND		SURPLUS (SITES AND AREAS IN EXCESS OF PROJECTED NEEDS)		DEFICIT		ADJACENT LANDS OF OTHER OWNERSHIP		QUALITY OF INVENTORIED LAND				
	(TABLE B, COL. 6)		(TABLE F, COL. 1)		(TABLE D, COL. 1)	(TABLE F, COL. 2a)	(TABLE F, COL. 2b)	(TABLE F, COL. 4a)	(TABLE F, COL. 4b)	(3b + 3d)	(3c + 3e)	(TABLE F, COL. 8)		(TABLE F, COL. 6)		(TABLE F, COL. 7)		DEVELOPED IN CONJUNCTION WITH ESTABLISHED N.F. SITES		POTENTIAL SITES JOINT DEVELOPMENT ESSENTIAL		OUTSTANDING	GOOD	FAIR
	VISITOR DAYS 1976 (a)	VISITOR DAYS 2000 (b)	ACRES 1976 (a)	ACRES 2000 (b)	ACRES 1960 (a)	ACRES 1976 (b)	ACRES 2000 (c)	ACRES 1976 (d)	ACRES 2000 (e)	ACRES 1976 (f)	ACRES 2000 (g)	ACRES 1976 (a)	ACRES 2000 (b)	ACRES 1976 (a)	ACRES 2000 (b)	ACRES 1976 (a)	ACRES 2000 (b)	ACRES (a)	ACRES (b)	ACRES (a)	ACRES (b)	ACRES (c)		
A-DEVELOPMEN REC. SITES																								
1. Campgrounds								XXXXX	XXXXX	XXXXXX	XXXXXX			XXXXXX	XXXXXX									
2. Picnic Sites								XXXXXX	XXXXXX	XXXXXX	XXXXXX			XXXXXX	XXXXXX									
3. Organization Sites								XXXXXX	XXXXXX	XXXXXX	XXXXXX			XXXXXX	XXXXXX									
4. Com. Pub. Service Sites								XXXXXX	XXXXXX	XXXXXX	XXXXXX			XXXXXX	XXXXXX									
5. Summer Home Sites								XXXXXX	XXXXXX	XXXXXX	XXXXXX			XXXXXX	XXXXXX									
Subtotal Occupancy Sites (1-5)								XXXXXX	XXXXXX	XXXXXX	XXXXXX			XXXXXX	XXXXXX									
6. Swimming Sites																								
7. Boating Sites																								
8. Winter Sports Sites																								
9. Observation Sites	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX							
Total Development Sites(1-9)																								
B-DISPERSED REC. AREAS																								
1. Wilderness Type																								
2. a. Virgin Areas	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
b. Scenic Areas	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
c. Geological Areas	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
d. Archeological Areas	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
e. Historical Areas	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
Subtotal Item 2, Unusual Int.																	XXXXXX	XXXXXX						
3. a. Roadside Zones	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
b. Trailside Zones	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
c. Waterfront Zones	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
d. Buffer Zones	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
Subtotal Item 3	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
4. a. Big Game Hunting Areas	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
b. Small Game Hunting Areas	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
c. Waterfowl Hunting Areas	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
Subtotal Hunting																	XXXXXX	XXXXXX						
5. a. Cold Water Fishing	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
b. Warm Water Fishing	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
Subtotal Fishing																	XXXXXX	XXXXXX						
6. a. Still Water Boating	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
b. Fast Water Boating	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
Subtotal Boating																	XXXXXX	XXXXXX						
7. Mountain Climbing Areas	XXXXXX	XXXXXX	XXXXXX	XXXXXX										XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX					
8. Hiking and Riding Areas																	XXXXXX	XXXXXX						

DISTRICT RECREATION PLAN COMPILATION SHEET I,
INVENTORY OF ESTABLISHED DEVELOPMENT SITES

Region _____ State _____ Forest _____ District _____ or L. U. Project _____
Compiled _____ (Date) ; Revised _____ (Date) _____ (Initials) ; _____ (Date) _____ (Initials) ; _____ (Date) _____ (Initials)

LINE NO.	NAME	LOCATION							ACREAGE					USE			FACILITIES AND IMPROVEMENTS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		SITE NUMBER	SECTION	TOWNSHIP	RANGE	PRINCIPAL MERIDIAN	GRID	ELEVATION	DEVELOPMENT			BUFFER	TO BE ELIMINATED FROM CURRENT USE		LANDS OF OTHER OWNERSHIP DEVELOPED WITH THIS SITE	VOLUME OF USE CLASS (A-F)	MONTHS OF PLANNED MANAGED USE	NUMBER OF PERSONS WHO COULD USE THIS SITE AT ONE TIME	NUMBER OF FAMILY UNITS								TABLES		FIREPLACES	TOILETS				AMPHITHEATERS	COMMUNITY HALLS	SPORTS AREAS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
									IMPROVEMENTS AND PARKING	SKI TERRAIN	TOTAL		BY 1976	1977 TO 2000					CURRENT				SAFE				FIXED	PORTABLE		NO. BLDG.	NO. SEATS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

DISTRICT RECREATION PLAN COMPILATION SHEET I, (Continued)
INVENTORY OF ESTABLISHED DEVELOPMENT SITES

Form No. 12
(Continued)

FACILITIES AND IMPROVEMENTS

LINE NO.	25 SITE NUMBER	26 SHELTERS				27 UTILITY BUILDINGS		28 BOAT DOCKS	29 BOAT LAUNCHING RAMPS	30 RECREATION FENCES (CHAINS)	31 RESTAURANT OR CONCESSION BLDG. (EXCL. HOTELS)	32 HOTEL, LODGE OR ORG. CAMP		33 RECREATION RESIDENCE		34 WINTER SPORTS							35 DOMESTIC WATER							36 F.S. OWNED MISC. RECREATION STRUCTURES	37 INTERIOR ROADS			38 PARKING LOTS AND SPURS						39 VEHICLE BARRIERS		
		CAMP, PICNIC AND TRAIL		WINTER SPORTS		100-1,000 SQ. FT. (a)	OVER 1,000 SQ. FT. (b)					CENTRAL BUILDINGS (a)	CABINS (b)	NO. LOTS (a)	NO. RESIDENCES (b)	LIFTS			TOWS				JUMPS (h)	HAND PUMPS (a)	GRAVITY FLOW SYSTEMS (b)	POWER PUMP SYSTEMS (c)	WATER TREATMENT PLANTS (d)	STORAGE CAPACITY "N" GALS. (e)	PIPE LINE		NUMBER (a)	CLASS (b)	MILES (NEAREST 1/10) (c)	LOTS		NO. SPURS (c)	NO. CARS (d)	NO. SPURS (e)	NO. CARS AND TRAILERS (f)	ON INTERIOR ROADS AND LOTS (CHAINS) (a)	ON PARKING SPURS (CHAINS) (b)	
		100-1,000 SQ. FT. (a)	OVER 1,000 SQ. FT. (b)	CHAIR (a)	GONDOLA (b)											CAPACITY P/P/H (c)	PLATTER (d)	BAR (e)	ROPE (f)	CAPACITY P/P/H (g)	2" DIAMETER AND LESS (f)	OVER 2" DIAMETER (g)							NUMBER (a)					CAPACITY (b)	CARS ONLY OR C & T TO 12" (c)							CARS AND TRAILERS OVER 12" (d)

DISTRICT RECREATION PLAN COMPILATION SHEET 2,
INVENTORY OF POTENTIAL DEVELOPMENT SITES

Region _____ State _____ Forest _____ District _____ or L. U. Project _____
Compiled _____; Revised _____
(Date) (Date) (Initial) (Date) (Initial) (Date) (Initial)

LINE NUMBER	1 NAME	2 LOCATION							3 ACREAGE										4 ACTIVITIES OR OPPORTUNITIES AVAILABLE		5 ACCESSIBILITY											6 QUALITY RATING			7	8	9																								
		SITE NUMBER (a)	SECTION (b)	TOWNSHIP (c)	RANGE (d)	PRINCIPAL MERIDIAN (e)	GRID (f)	ELEVATION (g)	DEVELOPMENT ACRES AVAILABLE								BUFFER		LANDS OF OTHER OWNERSHIP ESSENTIAL TO DEVELOPMENT OF THIS SITE (k)	ON SITE (a)	WITHIN 1/2 MILE (b)	FULLY ACCESSIBLE VIA:			NOT FULLY ACCESSIBLE, BUT ACCESS TO WITHIN 1/2 MILE EXISTING OR PLANNED VIA:		ACCESS TO WITH- IN 1/2 MILE NOT EXISTING OR PLAN- NED, BUT FEASI- BLE VIA:					ACCESS COST PER DEVELOP- MENT ACRE			SHORELINE DISTANCE	DEVELOPMENT PROGRAMMED FOR (F.Y.)	DEVELOPED (F.Y.)																								
									PRESENT - 1976				1977 - 2000				PRESENT - 1976 (i)	1977 - 2000 (j)					ROAD (NUMBER)	WATER ROUTE (b)	AIR (c)																																				
									IMPROVEMENTS (a)	PARKING (b)	SKI TERRAIN (c)	TOTAL (d)	IMPROVEMENTS (e)	PARKING (f)	SKI TERRAIN (g)	TOTAL (h)																																													
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INSTRUCTIONS

For

Recreation Plan Compilation Sheet 2

General: List information from FIELD INVENTORY Forms 17, 18 and 19.

Group by kinds of development sites and by quality classification within each kind so that totals may be obtained by kind and quality classes. The grouping by kinds will be:

Occupancy Sites

Swimming Sites

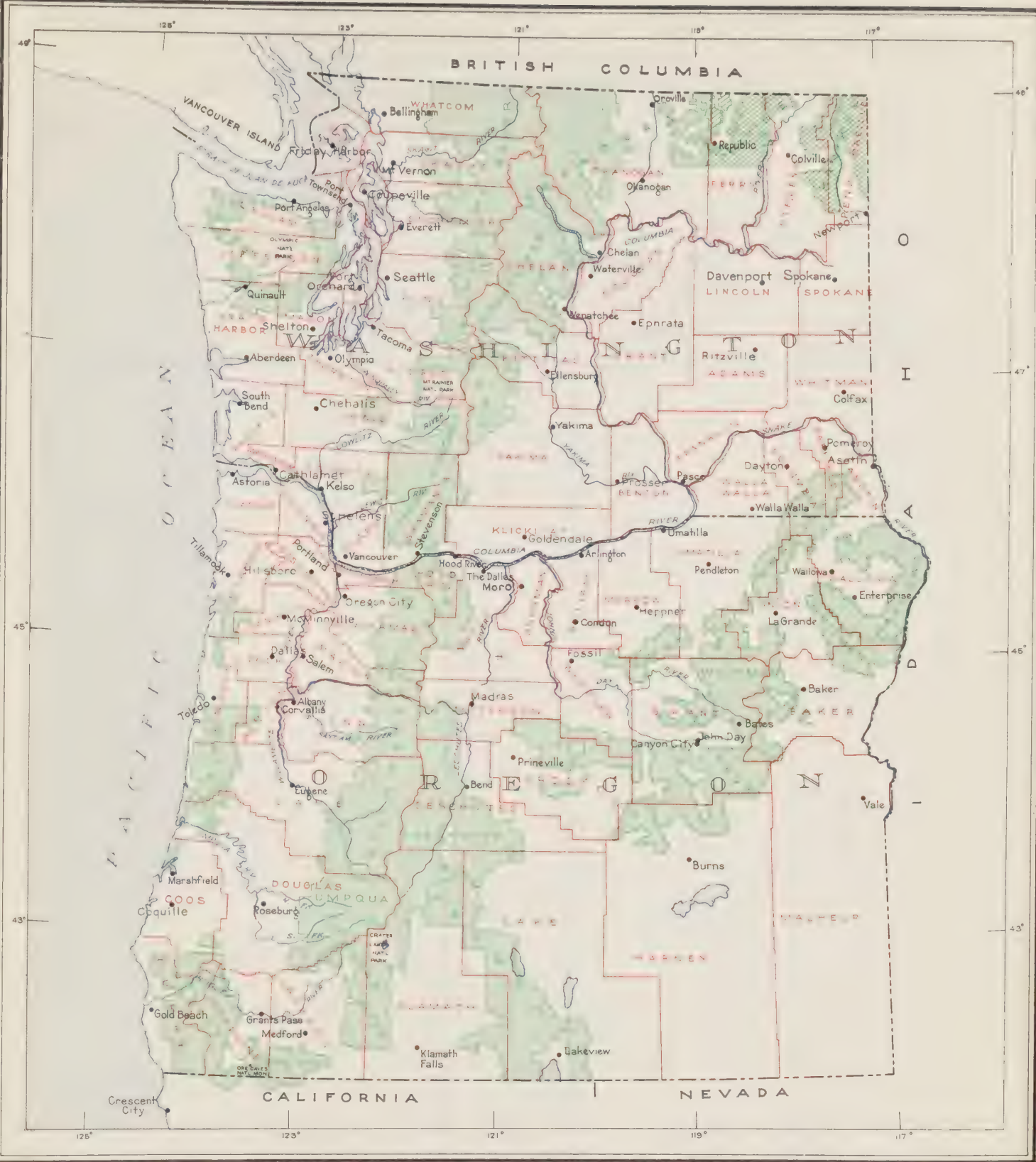
Boating Sites

Winter Sports Sites

Observation Sites

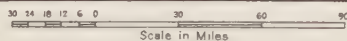
Specific: Columns 3(a), (b), (c) and (e) (f) (g) will be used only for Winter Sports Sites.

Columns 8 and 9 are for recreation planning and will not be used in connection with the NFORRR.



LEGEND

- STATE LINES
- COUNTY BOUNDARIES
- NATIONAL FORESTS
- NATIONAL FORESTS IN ADJACENT REGION



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

NATIONAL FORESTS
OF THE
PACIFIC NORTHWEST REGION
1959

USDA GCS PORTLAND OREG. 1959

NFORRR Form 15

Region _____ State _____ Forest _____ District _____ (or LU Project) _____)

Kind _____

(1)	(2)	(3)			(4)			
Name	Area No.	Acreage and First Available Year			Check Quality			
		By 1976 (acres) (a)	1977-2000 (acres) (b)	Total by 2000 3(a) + 3(b) (acres) (c)					O	G	F	U

INSTRUCTIONS

General:

List information from Field Inventory Form 20 through 31 for potential areas. Group by kinds of areas and by quality classification within each kind so that totals may be obtained by kind and quality classes. The kinds of areas will be the same as shown under B. Dispersed Recreation Areas, Form 7 except for "Buffer Zones" which have been listed in Plan Compilation Sheet 2.

Specific Instructions:

Column 2 - Enter number assigned at time of inventory. This should be the same as the map index number.

Column 4 - Check rating as evaluated. The only acreages of unsatisfactory quality lands which will be listed here and in Columns 1, 2, and 3 will be areas such as fishing and hunting areas which can be improved through improved management.

FIELD INVENTORY **ESTABLISHED DEVELOPMENT SITES**

A - SITE

B - ACRES

C - USE

D - FACILITIES

REGION		STATE (2-3)		COUNTY	
FOREST		[4-5]		DISTRICT OR LUP [6-7]	
1. KIND [8-9]				2. VALUE CODE [10]	
3. NAME				4. SITE NUMBER [11-14]	
5. LOCATION Section T. R. P.M.			6. GRID		7. ELEVATION
1. DEVELOPMENT SITE (<i>Usable land</i>)		2. WINTER SPORTS TERRAIN		3. TOTAL [15-18]	
4. BUFFER ZONE					
ENTRIES IN THIS BLOCK ARE TO BE MADE OR CHECKED BY UNIT MANAGER →		ACRES OF THIS ESTABLISHED SITE WHICH WILL BE ELIMINATED FROM CURRENT RECREATION IN FUTURE: BY 1976 _____ PERIOD 1977-2000 _____ (If acres so eliminated will be suitable for other recreation use, complete applicable "potential" inventory form and cross reference to this site number)			
5. LANDS OF OTHER OWNERSHIP DEVELOPED IN CONNECTION WITH THIS SITE					
1. VOLUME OF USE CLASS [19]			2. MONTHS OF PLANNED MANAGED USE [20-21]		
3. NUMBER OF PERSONS WHO COULD USE SITE AT ONE TIME [22-25]					
1. FAMILY UNITS a. Developed for →		CAMPING [26-28]	TRAILER [29-30]	PICNICKING [31-33]	TOTAL
b. Safe Capacity →		CAMPING	TRAILER	PICNICKING	TOTAL
2. TABLES [34-36]		[37-39]		3. FIREPLACES	
a. Fixed		b. Portable		4. TOILETS: a. Number of bulidings [40-41]	
				b. No. seats: Flush Pit Chemical	
5. AMPHITHEATER [42]	6. COMMUNITY [43] HALLS	7. SPORTS AREAS [44]		8. BEACHES OR POOLS (<i>Improved</i>) [45]	
9. BATHHOUSES [46]	10. SHELTERS [47]		[48]		
		a. Camp, Picnic & Trail: (1) 100 - 1000 sq. ft. (2) Over 1000 sq. ft.			
		[49]		[50]	
		b. Winter Sports: (1) 100 - 1000 sq. ft. (2) Over 1000 sq. ft.			
11. UTILITY BUILDINGS [51]		[52]		12. BOAT DOCKS [53]	
a. 100 - 1000 sq. ft.		b. Over 1000 sq. ft.			
13. BOAT LAUNCHING RAMPS [54]		14. RECREATION FENCES (<i>Chains</i>) [55-57]		15. RESTAURANT OR CONCESSION BUILDING (<i>Excl. Hotels</i>)	
16. HOTEL, LODGE OR ORGANIZATION CAMP a. Central Buildings b. Cabins		17. RECREATION RESIDENCE [58-60] a. No. lots b. No. residences			
18. WINTER SPORTS [61]		[62]			
a. Aerial lifts: (1) Chair [63] (2) Gondola [64] (3) Capacity - persons per hour [65]					
b. Tows: (1) Platter (2) Bar (3) Rope (4) Capacity - persons p/h c. Jumps					
19. DOMESTIC WATER					
a. No. Hand [67-68] Pumps		b. Gravity Flow [69] Systems		c. Power Pressue Pump [70] Systems	
d. Water Treatment [71] Plants					
e. Storage Capacity - M gallons		f. Pipe Lines (1) 2" dia. and less (2) Over 2" dia.			
20. FOREST SERVICE OWNED MISCELLANEOUS [72-73] RECREATION STRUCTURES		21. INTERIOR ROADS a. Road Number b. Road Class			
22. PARKING LOTS AND SPURS					
a. Number of lots		b. Capacity of lots in cars			
c. Spurs: (1) Cars or cars & trailers to 12' - No. spurs _____ No. cars _____ (2) Cars or cars & trailers ^{over} 12' - No. spurs _____ No. cars _____					
23. VEHICLE BARRIERS [74-76]		[77-79]			
a. On interior roads and parking lots (<i>chains</i>)		b. On parking spurs (<i>chains</i>)			

Examined by:

Date

INSTRUCTIONS

General Instructions

A separate Form 16 should be prepared for each kind of site listed under specific instruction A-1 below.

If a developed site has potential for expansion the expansion area should be inventoried on the appropriate Form 17 through 19 and given the same site number as the developed site with the letter "A" added.

Where there is a potential waterfront site adjoining a developed campground, resort, etc. evaluate the waterfront on Form 18 and give it the same site number as the developed site with .2 added. When this is done add .1 to the developed site number.

Certain items of information on this form will be punched on cards for preparing Form 446U and Volume of Business reports. The entries for these items are indicated by a heavy broken line. In recording information place numbers directly over the underscoring from right to left. For example, in recording 128 units in a 4 digit field it will show 1 2 8 .

All names of Forests, States, districts, etc. will be written in and also coded using the standard code for other punch card applications in the Region. In recording the name of LU projects place the letters LU ahead of the name.

Specific Instructions

A-1 Write in the kind of site and code as follows:

Code

01 Campground (Where primary purpose is camping)	07 Other Public Service Site
02 Picnic ground (Where primary purpose is picnicking)	08 Recreation Residence Sites (a site may contain one or more lots)
03 Organization camp owned by Forest Service	09 Swimming sites
04 Organization camp - Private ownership	10 Boating sites
05 Hotel Lodge or Resort owned by Forest Service	11 Winter Sports sites
06 Hotel Lodge or Resort - Private Ownership	12 Observation sites

A-2 Use only for hotel, resort or lodge and enter 1 if under \$20,000 or 2 if over \$20,000.

A-4 Number sites consecutively by ranger districts.

A-6 In non-sectionized country establish and record map grid (1 mile square) using alphabetical latitude and numerical longitude.

A-7 Record to nearest 200 feet.

B Record to nearest whole acre.

B-2 Enter only the acreage of cleared and natural slopes, trails and runs or skating area.

C-1 Enter appropriate letter A - D:

A. Under 1,000 visits

B. 1,000 - 5,000 visits

C. 5,000 - 15,000 visits

D. 15,000 - 25,000 visits

E. Over 25,000 visits

C-2 Period of use which will require at least weekly cleanup.

C-3 For Camp and Picnic Grounds enter seating capacity of tables. For Organization Camps, Hotels, Lodges, Resorts and Recreation Residence sites enter capacity of overnight facilities. For other sites enter the safe capacity of use at one time.

D-17b Number of occupied lots (lots under permit)

D-20 Structures not included in other headings of this inventory.

D-21a Assigned forest road number.

D-21b Current FDR class.

INSTRUCTIONS FOR PREPARATION OF NF-ORRR FORM 16
FIELD INVENTORY, ESTABLISHED DEVELOPMENT SITES

General Instructions

Certain items of information on this form will be machine tabulated and punched on cards for preparing Form 446U and Volume of Business reports. The entries for these items are indicated by a heavy broken line. In recording information place numbers directly over the underscoring from right to left. For example, in recording 128 units in a 4 digit field it would show 1 2 8 and not 0 1 2 8 . Zeros should not be recorded to the left of reported figures to fill in the digits or to fill in where nothing is being reported. If you desire to have something in a block to show the item was considered but no entry, use a dash —.

There may be a rare occasion when there are more digits to report than shown on the form. If this occurs record it anyway. IBM instructions will provide for punching this on an extra card.

A separate Form 16 should be prepared for each kind of site listed under specific instruction A-1 below. Inventory and report all existing facilities for each site.

If a developed site has potential for expansion or additional development, the expansion area should be inventoried on the appropriate Forms 17, 18 or 19. It should be given the same site number as the developed site with the letter "A" added.

Where there is a potential water-front site adjoining a developed campground, resort, etc. evaluate the water front on Form 18 and give it the same site number as the developed site with .2 added. When this is done add .1 to the developed site number.

All names of forests, States, districts, etc. will be written in and also coded using the standard code for other punchcard applications in the region. In recording the name of LU projects place the letters LU ahead of the name. The use of the county block is optional for local use only.

Specific Instructions

A-1 Write in the kind of site and code as follows:

<u>Code</u>	<u>Kind</u>
1	Campground (Where primary purpose is camping)
2	Picnic ground (Where primary purpose is picnicking)
3	Organization camp owned by Forest Service
4	Organization camp - Private ownership
5	Hotel, lodge or resort owned by Forest Service
6	Hotel, lodge or resort - Private ownership
7	Other public service site
8	Recreation residence sites (a site may contain one or more lots)
9	Swimming sites
10	Boating sites
11	Winter sports sites
12	Observation sites

For campgrounds (1), picnic grounds (2), swimming sites (9), boating sites (10), and observation sites (12) -- include improved sites on lands under Forest Service administration on which the Forest Service

- D-19-b Gravity Flow Systems. This should include only systems that distribute water to more than one location on a recreation site or to a building used solely for recreation purposes or for housing recreation employees. Developed springs without a distribution system should not be reported.
- D-19-c Enter number of power pressure systems. Do not duplicate with D-19-b. For example, if water is pumped into a reservoir for pressure and storage do not report this as a gravity system also. Do not include structure systems connected to city water systems.
- D-19-d Enter number of water treatment plants where water is filtered or purified.
- D-19-e Do not include small pressure tanks connected with power pressure pump systems.
- D-19-f Pipelines. The reporting here should be number of feet of pipelines.
- D-20 Structures not included in other headings of this inventory. Do not include structures for housing recreation employees.
- D-21-a Assigned forest road number. Also show miles of interior road to the nearest one-tenth of a mile.
- D-21-b Current FDR class. (From road plan)
- D-22-a Parking lots are developed improvements with a capacity of three or more cars.
- D-22-c Parking spurs are developed spurs with a capacity of one or two cars with or without trailers.
- D-23 Report improved barriers - not natural barriers or ditched roads which serve as barriers.

Date _____

NFORRR Form 17

Examined By _____

Field Inventory

POTENTIAL DEVELOPMENT SITES

(Use for All Potential Occupancy or Observation Development Sites)
(Cross Out One of the Two)

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Site Number (1) _____ First Available Year (2) _____

Section _____ Township _____ Range _____ Grid (3) _____ Elevation (4) _____

If potential site conflicts with other resource management and is not available for recreation, enter "X" _____ and name conflicting resource _____.

If this site is currently developed for a recreation use which will be eliminated in the future, show name and number of developed site:

Name _____ No. _____ (5)

ACRES

Development (6) _____ Buffer Zone (7) _____ Total _____

Lands of other ownership essential to development of this site _____

ACTIVITIES (8)--Or Opportunities. (On site enter "X"; if within reasonable distance indicate by numbers 1, 2, 3, etc.)

- | | | |
|--|---|---|
| <input type="checkbox"/> 1. *Boating | <input type="checkbox"/> 7. Hunting | <input type="checkbox"/> 13. Sci. Study |
| <input type="checkbox"/> 2. Camping | <input type="checkbox"/> 8. Hiking | <input type="checkbox"/> 14. *Swim. & Water Sports |
| <input type="checkbox"/> 3. *Canoeing | <input type="checkbox"/> 9. Mtn. Climbing | <input type="checkbox"/> 15. Wild. Travel |
| <input type="checkbox"/> 4. Fishing | <input type="checkbox"/> 10. Org. Camping | <input type="checkbox"/> 16. **Winter Sports |
| <input type="checkbox"/> 5. Gathering FFPF | <input type="checkbox"/> 11. Picnic | <input type="checkbox"/> 17. Educational or Interp. |
| <input type="checkbox"/> 6. General E&S | <input type="checkbox"/> 12. Riding | <input type="checkbox"/> 18. Observation |
| | | <input type="checkbox"/> 19. Other |

*If adjacent waterfront is involved inventory waterfront on Form 18.
**Off-site only.

ACCESS:

Accessible via Road # _____ Class _____ Water Route _____ Public airstrip
or heliport _____

Not Accessible:

But within 1/2 mile of Road # _____ Existing _____ or planned year 19 _____

But within 1/2 mile of water route available year 19 _____

But within 1/2 mile of public airstrip or heliport planned year 19 _____

But within 1/2 mile of feasible road _____ water _____ air _____ transp. _____

Not within 1/2 mile of existing, planned or feasible road, water route
or air transp. _____

Access cost per development acre (9): Under \$3,000 _____ Over \$3,000 _____

A-ATTRACTION: (10) Accessible to and within reasonable distance of:

<u>A-1</u>		<u>A-2</u>	
Ocean, bay, lake or reservoir (10 acres or larger)	1	Unusual scenery or other recreation feature outstanding	1
River or other major stream	2	Park, grove, or meadow	2
Small live stream	3	Scenery or other recreation feature locally common	3
Pond or pool less than 10 acres .	4	Not accessible to or within reasonable distance of above	4
Intermittent stream or spring (flows 1/2 season or more)	5		
Not accessible to or within reasonable distance of above ..	6		

Rated single scale _____ Combined scale _____

B-CLIMATIC RELIEF: Average temperature differential during use season:

More than 15° F	1	6-10° F ...	3	Negative	5
11-15° F	2	0-5° F ...	4		

C-FOREST

ENVIRONMENT: Excellent, practically without environmental detractions	1
Well preserved, not more than minor detractions	2
Not outstanding. Detractions substantial but acceptable ...	3
Detractions serious, but suitable for some type of recreation use	4
Unacceptable for recreation. Correction feasible	5
Unacceptable or unsafe due to fire hazards, slides, floods, etc., and correction not feasible	6

D-TERRAIN:

Regular - Slopes 0 to 10%	1
Rolling - Slopes 10 to 20%	2
Irregular - Slopes 20 to 30%	3
Abrupt - Slopes over 30%	4

E-SOIL:

	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Score</u>	
Fertility -	3	2	1	11-12	..... 1
Stability -	3	2	1	9-10	..... 2
Depth -	3	2	1	7-8	..... 3
Permeability -	3	2	1	4-6	..... 4
Damp, poorly drained, bog or swamp					
Extensive rock exposures, ledges, etc., (rate on development cost)					
()					

F-SHADE OR SHELTER (11): High shade - 50-100% = 1, 25-50% = 3, 10-25% = 5
 Low shade - 50-100% = 2, 25-50% = 4, 10-25% = 6
 High and low shade less than 10% = 7
 OR: Direct shelter rating () ; constructed rating ()

G-COVER (Composition and Density):

	Composition	Density	Score
Excellent	1	1	2-3 1
Good	2	2	4-6 2
Fair	3	3	5-6 3
Score above 6, but correction feasible at mod. cost ..			4
Unsatisfactory	5	5	7-10 5

H-DOMESTIC WATER:	Adequate supply can be developed at low cost	1
(12)	Adequate supply can be developed at moderate cost ...	2
	Adequate supply can be developed at high cost	3
	Not feasible to develop adequate supply	4

Accessibility Rating

(13)

Site Quality

Adjective Rating

Outstanding _____
 Good _____
 Fair _____
 _____ Inaccessible

A	1	2	3	4	5	6	7	8	9	10
B	1	2	3		5					
C	1	2	3	4	5	6				
D	1	2	3	4						
E	1	2	3	4	5					
F	1	2	3	4	5	6	7			
G	1	2	3	4	5					
H	1	2	3	4						

Outstanding _____
 Good _____
 Fair _____
 Unsuitable _____

(14) Final rating O _____ G _____ F _____ U _____

INSTRUCTIONS

Entries to be made or checked by Unit Manager appear in box

- (1) Number sites consecutively by ranger districts. If potential site adjoins improved site and is a logical extension or expansion of it, use improved site number and add letter "A". Where adjoining waterfront development site is to be evaluated on Form 18, add ".6" to site number assigned on Form 17. Waterfront site will carry the same number but with .00 added.
- (2) Earliest year site will be available and suitable for development.
- (3) In non-sectionized country establish and record map grid (1 mile sq.), using alphabetical latitude and numerical longitude.
- (4) Record to nearest 200 ft.
- (5) Unit Managers' decisions--see policy guidelines.
- (6) Acres suitable for development. Minimum usually 2 acres (except observation sites, minimum usually 1 acre.) Record to nearest whole acre.

- (7) To nearest whole acre.
- (8) Enter "X" opposite principal activities or opportunities available on the site being considered. Number in priority order activities available within reasonable distance of the site. For sites suitable only for observation, enter "X-1" opposite Item 18.
- (9) Note: Normal development cost per usable acre of camp and picnic ground is \$2,000 for access and \$3,000 for facilities.
- (10) "Reasonable distance" will be defined locally. Decision to use single scale or combined scale will be made locally. If on combined scale, add A-1 and A-2.
- (11) High shade = over 30 ft. Low shade = under 30 ft. If high elevation direct cover rating is used, show under "Comments" the type of cover indicated by the assigned rating.
- (12) Using typical development costs of \$1.00 per foot of line in place and \$7.00 per foot of well, + \$500 for appurtenances: Or using applicable local costs - compute:

$$\text{Cost per acre} = \frac{\text{Ft. pipeline} \times \$1.00 + \text{ft. well} \times \$7.00 + \$500}{\text{Development acres}}$$

In general, development cost per usable campground acre may be considered low if less than \$300; moderate if \$300 to \$900; high if \$900 to \$1,500 and not feasible if over \$1,500.

- (13) Circle code number for each item A through H. Apply prescription and enter "X" after appropriate adjective rating.
- (14) See instructions under "Quality Prescriptions". Note that Final Rating cannot exceed Accessibility Rating.

COMMENTS: (Enter here any remarks needed to explain or amplify data on this site.)

Date _____

NRORRR Form 18

Examined By _____

Field Inventory

POTENTIAL WATERFRONT DEVELOPMENT SITE

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Site Number (1) _____ First Available Year (2) _____

Section _____ Township _____ Range _____ Grid (3) _____ Elevation (4) _____

(5) If potential site conflicts with other resource management and is not available for recreation, enter "X" _____ and name conflicting resources _____

If this site is currently developed for a recreation use which will be eliminated in the future, show name and number of developed site:
Name _____ No. _____

ACRES

Development (6) _____ Buffer Zone (7) _____ Total _____

Lands of Other Ownership essential to development of this site _____

ACTIVITIES (8)--Or Opportunities. (On site enter "X"; if within reasonable distance indicate by numbers 1, 2, 3, etc.)

- | | | |
|--|--|---|
| <input type="checkbox"/> 1. Boating | <input type="checkbox"/> 7. Hunting | <input type="checkbox"/> 13. Sci. Study |
| <input type="checkbox"/> 2. Camping | <input type="checkbox"/> 8. Hiking | <input type="checkbox"/> 14. Swim & Water Sports |
| <input type="checkbox"/> 3. Canoeing | <input type="checkbox"/> 9. Mtn. Climbing | <input type="checkbox"/> 15. Wild. Travel |
| <input type="checkbox"/> 4. Fishing | <input type="checkbox"/> 10. Org. Camping | <input type="checkbox"/> 16. Winter Sports** |
| <input type="checkbox"/> 5. Gathering FPFP | <input type="checkbox"/> 11. Picnic | <input type="checkbox"/> 17. Educational or Interp. |
| <input type="checkbox"/> 6. General E&S | <input type="checkbox"/> 12. Riding | <input type="checkbox"/> 18. Observation |
| | | <input type="checkbox"/> 19. Other |

**Off-site only.

ACCESS:

Accessible via Road # _____ Class _____ Water Route _____ Airstrip or Heliport _____

Not accessible:

But within 1/2 mile of Road # _____ Existing _____ or planned year 19 _____
But within 1/2 mile of water route available year 19 _____
But within 1/2 mile of public airstrip or heliport planned year 19 _____

Not accessible, but within 1/2 mile of feasible road _____ water _____ air _____
Not within 1/2 mile of existing, planned or feasible road, water route
or air transp. _____

Access cost per development acre (9): Under \$3,000 _____ Over \$3,000 _____

SHORELINE DISTANCE, THIS SITE _____ chains

A. WATER TEMPERATURE (AVERAGE DURING USE SEASON)

73° F plus	1	60°-67° F	3
68°-73° F	2	less than 60° F	4

B. SHORELINE OR FLOW FLUCTUATION (During recreation season)

Little or none	1	*Major--detracts less than 1/2 season	3
Mod. or immaterial...	2	*Major--detracts more than 1/2 season	4

(*May include small but hazardous fluctuations where streamflow is regulated by hydroelectric developments.)

C. SHORELINE--First 50' above water

Sand	1
Gravel	2
Timbered	3
Soil-mud	4
Rock	5

D. BOTTOM--Below waterline to 5' depth

	<u>Swimming</u>	<u>Boating</u>
Sand	1	1
Gravel	2	2
Rock	3	5
Mud	4	4
Vegetation	5	3

E. DISTANCE--Shoreline to 5' depth

	<u>Swimming</u>	<u>Boating</u>
Average 100' or more..	1	4
50' - 100'	2	3
25' - 50'	3	2
0' - 25'	4	1

F. INDUSTRIAL OR DOMESTIC POLLUTION:

Uncontaminated	1	Light Pollution	3
Contaminated	2	Heavy Pollution	4

G. COLOR & TURBIDITY

Clear	-	Objects distinguishable 24" below surface	1
Cloudy to murky	-	Objects recognized more than 8", but less than 24" below surface	2
Muddy	-	Objects unrecognizable when covered with 8" of water	3

H. WIND VELOCITY & CONSTANCY

Favorable full season	1	Unfavorable more than 1/2 season ..	3
Favorable more than 1/2 season..	2	Unfavorable full season	4

I. CLASSIFICATION OF WATER:

NF 1
 Navigable 2

Other Public 3
 Private 4

Summary

A	1	2	3	4	
B	1	2	3	4	
C	1	2	3	4	5
D	1	2	3	4	5
E	1	2	3	4	
F	1	2	3	4	
G	1	2	3		
H	1	2	3	4	
I	1	2	3	4	

Summary

A	1	2	3	4	
B	1	2	3	4	
C	1	2	3	4	5
D	1	2	3	4	5
E	1	2	3	4	
F	1	2	3	4	
G	1	2	3		
H	1	2	3	4	
I	1	2	3	4	

Swimming

O _____ G _____ F _____ U _____

Boating

O _____ G _____ F _____ U _____

S I T E Q U A L I T Y

Acreeage Assignment of Potential Waterfront Site: (10)

Swimming

Boating

Development _____

Buffer _____

Total _____

INSTRUCTIONS

Entries to be made or checked by Unit Manager appear in box

- (1) Number sites consecutively by ranger districts. If potential site adjoins improved swimming or boating site and is a logical extension or expansion of it, use improved site number and add letter "A". Where an adjoining development site has been evaluated on Form 16 or 17, add "1" to site number assigned on Form 16 or 17. The waterfront site will carry the same number but with "2" added.
- (2) Earliest year site will be available and suitable for development.
- (3) In non-sectionized country establish and record map grid (1 mile sq.), using alphabetical latitude and numerical longitude.
- (4) Record to nearest 200 ft.
- (5) Unit Manager's decisions, see policy guidelines.
- (6) Acres suitable for development. Minimum usually one acre. Record to nearest whole acre.
- (7) To nearest whole acre.
- (8) Enter "X" opposite principal activities or opportunities available on the site being considered. Number in priority order activities available within reasonable distance of the site.
- (9) Note: Normal development cost per usable acre of camp and picnic ground is \$2,000 for access and \$3,000 for facilities.
- (10) The acreage of potential waterfront site will be assigned to either swimming, boating or divided between the two, depending on the site quality rating determined for each use and the projected demand in acres as indicated in Table B (Form 4), Column (3).

COMMENTS: (Enter here any remarks needed to explain or amplify data on this site.)

Date _____

NFORRR Form 19

Examined by _____

Field Inventory
POTENTIAL DEVELOPMENT SITES
(WINTER SPORTS)

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Site No. (1) _____ First Available Year (2) _____

Section _____ Twp. _____ Range _____ Grid (3) _____ Elevation (4) _____

(5) If potential site conflicts with other resource mgt. and is not available for recreation, enter "X" _____ and name conflicting resource _____

If this site is currently developed for a recreation use which will be eliminated in the future, show name and number of developed site:

Name _____ No. _____

ACRES: (6)

Development:

For Improvements _____

For Parking _____

For Ski Terrain _____

Total _____

Buffer _____

Lands of other ownership essential to development of this site: Acres _____

ACCESS

Accessible via road number _____ Class _____

Not accessible, but within 1/2 mile of Road # _____ Existing _____

or planned year _____

Not accessible, but within 1/2 mile of feasible road _____

Not within 1/2 mile of existing, planned or feasible road _____

Access cost per development acre: Under \$3000 _____ Over \$3000 _____

RATE THE FOLLOWING:

A. Snow and Ice

1. Period of sufficient snow to make winter sports feasible

Snow Cover 4 months or more 1

Snow Cover 3 months 2

Snow Cover 2 months 3

Snow Cover 1 month 4

Snow Cover less than 1 month 5

2. Snow Texture

Dry Snow 2/3 of season or more	1
Dry Snow 1/2 of season	2
Dry Snow 1/3 of season	3
Dry Snow 1/4 of season	4
Usually wet or icy	5

3. Snow Depth During Peak Period of Use

4 feet or more	1
3 to 4 feet	2
2 to 3 feet	3
1 to 2 feet	4
Less than 1 foot	5

4. Snowfall as an Adverse Factor

Snowfall does not result in unusual problems of snow removal, operation of facilities or discomfort	1
Snowfall results in major problems occasionally	2
Snowfall results in major problems at least one-half of the season	3
Snowfall results in major problems most of the season	4

5. Period of Satisfactory Open Ice (Only when ice skating is to be considered)

Satisfactory ice conditions for 90 days	1
Satisfactory ice conditions for 60 days	2
Satisfactory ice conditions for 30 days	3
Satisfactory ice conditions for less than 30 days	4

B. Vertical Rise of Slopes

3000 feet or more	1	1000 - 1500 feet	5
2500 - 3000 feet	2	500 - 1000 feet	6
2000 - 2500 feet	3	300 - 500 feet	7
1500 - 2000 feet	4	Less than 300 feet	8

C. Steepness of Slope

(Novice, 10-20%; Intermediate, 20-30%; Advanced, over 35%) (Guideline: On an optimum winter sports site, about 15% of slopes would be Novice, 50% Intermediate and 35% Advanced.)	
40 to 60% of usable slope area is intermediate with adequate novice and advanced slopes	1
Majority of usable slope are intermediate, but with adequate novice slopes and some advanced slopes	2
Majority of usable slopes are intermediate, with adequate novice slopes and no advanced slopes	3
Most of usable slopes are novice	4
Most of usable slopes are advanced	5

D. Aspect of Slopes

General aspect of slopes is north	1
General aspect of slopes is east or west	2
General aspect of slopes is south	3

E. Wind Conditions

Very slight winds	1
Occasional winds causing drifting	2
Occasional high winds	3
Frequent high winds	4

F. Temperatures

Day temperature generally above 0°F.	1
Day temperature above 0°F. on majority of days	2
Day temperature below 0°F. on majority of days	3

G. Avalanche Possibilities

No avalanche problems	1
Occasional avalanche possibilities but little hazard to life or property	2
Frequent avalanche possibilities but life and property safe with planned avalanche control	3
With intensive avalanche control site is safe and satisfactory for use a majority of the use season	4
Site unsafe or unsatisfactory for use due to avalanches at least one-half the season even with intensive avalanche control	5

H. Slope Protection (7)

Adequate protection for all slopes	1
Adequate protection for most slopes	2
Inadequate protection for most slopes	3
Inadequate protection for all slopes	4

I. Cost of Slope Clearing

Slope clearing costs low	1
Slope clearing costs moderate	2
Slope clearing costs high	3

J. Ground Surface Conditions

No surface work needed	1
Some surface work needed	2
Moderate surface work needed	3
Heavy surface work needed	4

K. Availability of Electric Power

Commercial electric power at site	1
Commercial electric power available at moderate cost	2
Commercial electric power available at high cost	3
Commercial electric power not available	4

L. Parking Development Costs

Parking development costs low	1
Parking development costs moderate	2
Parking development costs high	3

M. Convenience of Parking Location

Parking on-site and within easy walking distance to slopes and facilities	1
Parking on-site but at some distance from facilities	2
Parking off-site and requiring long walk or other means of transportation to reach facilities	3

N. Appurtenant Service Development Possibilities

Adequate room and easy development chance for shelters, sanitation, water, etc.	1
Moderate amount of room and moderate development chance for appurtenant service facilities	2
Little room and difficult development chance for appurtenant facilities	3

O. Yearlong or Seasonal Recreation

Site has as much or more summer recreation potential as winter ...	1
Site offers some summer recreation potential	2
Site offers no summer recreation potential	3

P. Damage to Aesthetic View

Slope clearing and developments will not mar the landscape or will not be seen from main routes of travel or centers of population	1
Slope clearing and developments will not seriously mar the landscape or will not be readily seen from main routes of travel or centers of population	2
Slope clearing and developments will seriously mar the land- scape and will be readily seen from main routes of travel or centers of population	3

Summary

Accessibility Rating
Outstanding _____
Good _____
Fair _____
Inaccessible _____

A-1	1	2	3	4	5			
2	1	2	3	4	5			
3	1	2	3	4	5			
4	1	2	3	4				
5	1	2	3	4				
B	1	2	3	4	5	6	7	8
C	1	2	3	4	5			
D	1	2	3					
E	1	2	3	4				
F	1	2	3					
G	1	2	3	4	5			
H	1	2	3	4				
I	1	2	3					
J	1	2	3	4				
K	1	2	3	4				
L	1	2	3					
M	1	2	3					
N	1	2	3					
O	1	2	3					
P	1	2	3					

Site Quality
Adjective Rating
Outstanding _____
Good _____
Fair _____

Unsuitable _____

Final Rating: O _____ G _____ F _____ U _____

INSTRUCTIONS

Entries to be made or checked by Unit Manager appear in box

- (1) Number sites consecutively by ranger districts.
If the potential site is an extension or expansion of a developed winter sports site, use the developed site number and add the letter "A".
- (2) Earliest year site will be available and suitable for development.
- (3) In non-sectionized country establish and record map grid (1 mile sq.) using alphabetical latitude and numerical longitude.
- (4) Record to nearest 200 ft. at base development location.
- (5) Unit Manager's decisions - see policy guidelines.

- (6) Record to nearest whole acre. Include in ski terrain the acreages of natural slopes as well as slopes and runs which can be cleared for use. Since parking can also be a limiting factor in the capacity of a winter sports area do not inventory more ski terrain than is necessary to accommodate the number of people for which parking can be developed.
 - (7) Protection from wind and sun action, where needed. It may be tall trees, terrain protection such as ridges, or a combination of both.
-

COMMENTS:

Date _____

NFORRR Form 20

Examined by _____

FIELD INVENTORY

Evaluation of
WILDERNESS, WILD AND ROADLESS AREAS
(Cross Out Two of Three)

Region _____ State _____ County _____ Forest _____

Name _____ Number _____ Classified or Established _____ Potential _____

District or (LUP)

Acres

Total

Location of Area: Describe by legal subdivisions, metes and bounds,
geographical boundaries or reference to map or aerial
photograph on which boundaries are delineated.

First Available Year (1) _____

(2) If an area has potential as a wilderness type but conflicts with other
resource management and is not available for classification, enter
"X" _____ and name conflicting resources _____

(3) If part or all of established or classified area will be eliminated from
current recreation use enter: Acres _____ Year _____
If acres so eliminated will be suitable and available for other recreation
use either as dispersed recreation area or development site, complete
"potential" inventory form and cross reference to this area number.

Min. Outstanding . . . 38
 Min. Good 28
 Min. Fair 21

<u>RATE THE FOLLOWING</u>		<u>Ratings</u>	<u>Score</u>
1. a.	The environment is natural, and/or inspirational, unique, spectacular, highly scenic (of exceptional beauty, physiography or vegetative cover).	5	
b.	The environment is natural, but not unique nor highly scenic, though small portions may be so.	3	
c.	The environment is natural, but somewhat monotonous as compared to (a) and (b).	2	
2. a.	The area provides physical opportunities for unusual adventure, excitement, challenges, self-reliance.	6	
b.	The area provides some opportunity for adventure, excitement, challenges, self-reliance.	3	
3. a.	Potential wilderness camp sites for back packers, trail riders or boat voyagers are numerous and well distributed throughout the area.	3	
b.	Potential wilderness camp sites are rather limited and/or concentrated along a few streams, lakes or main trails.	2	
c.	Potential wilderness camp sites are both limited in number, poorly dispersed and one or more requirements of a good camp site are in short supply.	1	
4. a.	The area contains numerous and well dispersed fishing waters that rate good to excellent, as rated on the Fishing Waters evaluation form.	3	
b.	The area is moderately well supplied in number and distribution with good fishing waters.	2	
c.	Fishing waters are limited and not a major wilderness attraction.	1	

	<u>Ratings</u>	<u>Score</u>
5. a. Wildlife populations including game species, rodents, song birds, reptiles are varied and/or one or more species abundant.	3	
b. Wildlife populations are not particularly abundant and varied.	2	
c. Wildlife forms are scarce and/or not readily seen and enjoyed.	1	
6. a. The Wilderness Area provides excellent hunting, as rated on the Hunting Habitat evaluation forms.	3	
b. Provides good hunting.	2	
c. Provides fair hunting.	1	
7. a. The resources and incentives for informal outdoor education and for both formal and informal scientific study are unusual.	3	
b. The resources and incentives for informal outdoor education and for both formal and informal scientific study are good but not unusual.	2	
8. a. The range of various outdoor activities and opportunities is great -- for example (Mountain climbing, ski touring, canoeing, varied fishing and hunting, boating, river rafting, back packing, horse packing, hiking photography, hobbies, etc.)	3	
b. The range of outdoor activities is limited primarily to wilderness travel and camping accompanied by a few other activities.	2	
9. a. The wilderness environment is such that users can experience a wide range of intangible values: feeling of solitude, inspiration, elation, sense of wonder, sense of freedom, beauty, spirit-of-adventure and excitement, refreshment, spiritual awareness, serenity, self-reliance. (Intangible values arise from man's interaction with an outdoor (wilderness) environment and as such vary with the individuals and with the environment. Some environments contribute to more of these values and to a greater degree than do others.)	5	

		<u>Ratings</u>	<u>Score</u>
	b. The range and degree of intangible values that may be experienced is influenced by limited opportunities and limited wilderness resources.	3	
10.	a. The area is ecologically stable and can absorb considerable human and other use without abuse.	2	
	b. The area is all or in large part ecologically fragile and cannot withstand considerable use without rapid deterioration.	1	
11.	a. The area provides climatic changes and conditions that are not in abundant supply throughout the country or region.	2	
	b. The area does not provide climatic changes and conditions that are relatively scarce.	1	
12.	a. The area is free of present or potential land-use conflicts that are or may be deleterious to wilderness-type use and recreation. These include poorly managed private holdings, Federal Power Commission and Reclamation withdrawals, large expanses of high quality timber on productive sites.	3	
	b. The area is relatively free of land-use conflicts -- perhaps one or two small private holdings.	2	
	c. One or more serious conflicts of the above type exist.	0	
13.	a. Management practices are such that wilderness area values are not impaired.	5	
	b. Management practices are such that some activities or conditions are deleterious and/or not in the best interest of wilderness recreation. (Example -- excessive livestock grazing, overpopulation of big game, excessive and/or road-like trails).	2	
14.	a. The size of the area is much larger than the minimum acreage required by definition for the wilderness-type area being considered.	3	
	b. The size of the area ranges between the minimum for the wilderness-type area being considered and approximately five times this size.	2	
	c. The area barely meets the minimum size requirements.	1	
	Highest possible rating	49	

Total

INSTRUCTIONS

The assigned ratings for each criterion have been made on a basis of the importance of each as characteristics of the area being evaluated. Intermediate ratings for the criterion choices can, and should be, used where the numerical value or spread is large. Use lesser numerical values down to and including zero (0) where this is necessary to express the true condition or situation. The higher the quality the higher the numerical rating. Do not give ratings higher than the maximum indicated.

Hunting and fishing criteria ratings should agree with quality ratings given to Hunting and Fishing Areas within Wilderness Areas. A rating for hunting, fishing, boating, hiking, and mountain climbing opportunities (Criterion No. 8) should also agree with the evaluation ratings for these areas.

Entries to be made or checked by Unit Manager appear in box

--

- (1) Use this block for potential areas only. This will be the earliest year the area will be available and suitable for classification for this use.
- (2) Use this block for potential areas only.
- (3) Use this block for existing or classified areas only.

Where the area falls into more than one district or inventory unit, only one inventory and evaluation form need be completed. However, copies should be furnished each district involved.

Comments:

Key photographs and reference to file negatives:

Date _____

NFORRR Form 21

Examined by _____

FIELD INVENTORY

Evaluation of
VIRGIN AREAS

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Number _____ Classified _____ Potential _____

District or (LUP)

Acres

Total _____

Location of Area: Describe by legal subdivisions or reference to map or
aerial photograph on which boundaries are delineated.

First Available Year (1) _____

(2) If an area has potential as a Virgin Area but conflicts with other resource
management and is not available for recreation, enter "X" _____ and
name conflicting resources _____

(3) If part or all of classified area will be eliminated from current recreation
use enter: Acres _____ Year _____
If acres so eliminated will be suitable and available for other recreation
use either as dispersed recreation area or development site, complete
"potential" inventory form and cross reference to this area number.

Final Score _____ Quality _____

Approx. Ratings

Min. Outstanding . . . 13
 Min. Good 10
 Min. Fair 7

RATE THE FOLLOWING

	<u>Ratings</u>	<u>Score</u>
1. The area provides opportunities for the enjoyment of recreational activities related to outdoor education, scientific hobbies, natural history studies and observations, plant and wildlife photography.	5	
2. The area is a forest vegetative type not hitherto represented or at least not well represented in such scientific and protective categories as <u>natural areas</u> or <u>nature</u> sanctuaries and thus provides rather unique study possibilities	5	
3. The area has special scientific study values in that it is a good and representative example of a particular forest vegetative type or types.	3	
4. a. The area shows no man-made disturbances of the vegetation and reflects little influence of man and his activities.	2	
b. The area has virtually no man-made disturbances of the vegetation but some influences of man and his activities are evident.	1	
Highest possible rating	15	

Instructions:

Total

The assigned ratings for each criterion have been made on a basis of the importance of each as characteristics of the area being evaluated. Intermediate ratings for the criterion choices can, and should be, used where the numerical value or spread is large. Use lesser numerical values down to and including zero (0) where this is necessary to express the true condition or situation. The higher the quality the higher the numerical rating. Do not give ratings higher than the maximum indicated.

Entries to be made or checked by Unit Manager appear in box

- (1) Use this block for potential areas only. This will be the earliest year the area will be available and suitable for classification for this use.
- (2) Use this block for potential areas only.
- (3) Use this block for existing or classified areas only.

Where the area falls into more than one district or inventory unit, only one inventory and evaluation form need be completed. However, copies should be furnished each district involved.

Comments:

Key photographs and reference to file negatives:

Date _____

NFORRR Form 22

Examined by _____

FIELD INVENTORY

Evaluation of
SCENIC AREAS

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Number _____ Classified _____ Potential _____

District or (LUP)

Acres

Total

Location of Area: Describe by legal subdivisions or reference to map or
aerial photograph on which boundaries are delineated.

First Available Year (1) _____

(2) If an area has potential as a Scenic Area but conflicts with other resource
management and is not available for recreation, enter "X" _____ and
name conflicting resources _____

(3) If part or all of classified area will be eliminated from current recreation
use enter: Acres _____ Year _____
If acres so eliminated will be suitable and available for other recreation
use either as dispersed recreation area or development site, complete
"potential" inventory form and cross reference to this area number.

Final Score _____ Quality _____

Approx. Ratings

Min. Outstanding . . 8
 Min. Good 6
 Min. Fair 4

RATE THE FOLLOWING

Ratings

Score

- | | | |
|---|---|--|
| 1. The area has most of the following components-
physiography and earth contours; geological, rock
and soil formations; trees and other vegetation;
water; sky, skyline and clouds in various combina-
tions and variously affected by the elements. | | |
| a. The components and combinations are striking. | 5 | |
| b. The components and combinations demand notice. | 3 | |

- | | | |
|---|----|--|
| 2. The area has the visual or perceptual aspects listed
above in such arrangement and combinations that a
pleasurable feeling is induced in the observer.
This feeling of pleasure or aesthetic appreciation is: | | |
| a. Strong, unique, exhilarating, and remains vivid
in memory. | 5 | |
| b. Moderate but still unusual. | 3 | |
| c. Apparent but not unusual. | 1 | |
| Highest possible rating | 10 | |

Total

Instructions:

The assigned ratings for each criterion have been made on a basis of the importance of each as characteristics of the area being evaluated. Intermediate ratings for the criterion choices can, and should be, used where the numerical value or spread is large. Use lesser numerical values down to and including zero (0) where this is necessary to express the true condition or situation. The higher the quality the higher the numerical rating. Do not give ratings higher than the maximum indicated.

Entries to be made or checked by Unit Manager appear in box

- (1) Use this block for potential areas only. This will be the earliest year the area will be available and suitable for classification for this use.
- (2) Use this block for potential areas only.
- (3) Use this block for existing or classified areas only.

Where the area falls into more than one district or inventory unit, only one inventory and evaluation form need be completed. However, copies should be furnished each district involved.

Comments:

Key photographs and reference to file negatives:

Date _____

NFORRR Form 23

Examined by _____

FIELD INVENTORY

Evaluation of
GEOLOGICAL AREAS

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Number _____ Classified _____ Potential _____

District or (LUP)

Acres

Total _____

Location of Area: Describe by legal subdivisions or reference to map or
aerial photograph on which boundaries are delineated.

First Available Year (1) _____

(2) If an area has potential as a Geological Area but conflicts with other
resource management and is not available for recreation, enter "X" _____
and name conflicting resources _____

(3) If part or all of classified area will be eliminated from current
recreation use enter: Acres _____ Year _____
If acres so eliminated will be suitable and available for other recreation
use either as dispersed recreation area or development site, complete
"potential" inventory form and cross reference to this area number.

Final Score _____ Quality _____

Approx. Ratings

Min. Outstanding . . 10

Min. Good 7

Min. Fair 5

RATE THE FOLLOWINGRatingsScore

1. a. The area contains one or more geological features judged to be outstanding by competent authorities in the field of geology. Some examples of features are: active glaciers, evidences of alpine or continental glaciation; volcanic formations such as thermal actions, cones, lava flows, dikes, sills, batholiths; water erosion features such as caves, canyons, natural bridges, shore lines; wind actions such as dunes, rock sculpturing; rare or interesting rock or mineral deposits; example of diastrophism, folds, faults, etc.; metamorphism or rock changes, fossil deposits or outcrops; petrified flora. 5
(Examples - Glaciers of Bridger Wilderness Area, Hells Canyon of the Snake River).

- b. The area contains one or more of the above geological features that are interesting though not outstanding, unusual, or unique. 2

2. a. The geological features of the area clearly and graphically reveal an interesting and educational story of the earth's history and development. 3

- b. The features, though interesting, do not clearly illustrate an educational story of the earth's history. 1

3. a. The features can withstand public use. 3

- b. The features are fragile and easily destroyed. 1

Highest possible rating 11

Total

Instructions:

The assigned ratings for each criterion have been made on a basis of the importance of each as characteristics of the area being evaluated. Intermediate ratings for the criterion choices can, and should be, used where the numerical value or spread is large. Use lesser numerical values down to and including zero (0) where this is necessary to express the true condition or situation. The higher the quality the higher the numerical rating. Do not give ratings higher than the maximum indicated.

Entries to be made or checked by Unit Manager appear in box

--

- (1) Use this block for potential areas only. This will be the earliest year the area will be available and suitable for classification for this use.
- (2) Use this block for potential areas only.
- (3) Use this block for existing or classified areas only.

Where the area falls into more than one district or inventory unit, only one inventory and evaluation form need be completed. However, copies should be furnished each district involved.

Comments:

Key photographs and reference to file negatives:

Date _____

NFORRR Form 24

Examined by _____

FIELD INVENTORY

Evaluation of
ARCHEOLOGICAL AREAS

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Number _____ Classified _____ Potential _____

District or (LUP)

Acres

Total

Location of Area: Describe by legal subdivisions or reference to map or
aerial photograph on which boundaries are delineated.

First Available Year (1) _____

(2) If an area has potential as an Archeological Area but conflicts with other
resource management and is not available for recreation, enter "X" _____
and name conflicting resources _____

(3) If part or all of classified area will be eliminated from current recreation
use enter: Acres _____ Year _____
If acres so eliminated will be suitable and available for other recreation
use either as dispersed recreation area or development site, complete
"potential" inventory form and cross reference to this area number.

Final Score _____ Quality _____ Approx. Ratings

Min. Outstanding . . 12
 Min. Good 10
 Min. Fair 6

<u>RATE THE FOLLOWING</u>		<u>Ratings</u>	<u>Score</u>
1.	a. The area provides clear-cut, excellent, and abundant evidence of use by aboriginal people and societies. Such evidence might be petroglyphs, cairns, caves, abodes, camp sites, burial mounds, collections of artifacts, etc.	5	
	b. The area provides evidence that is scattered or meagre, mediocre, deteriorated or has been pillaged.	2	
2.	a. The archeological evidence is of unusual or significant scientific value and/or of definite public interest.	5	
	b. The archeological evidence is of limited scientific value and public interest.	2	
3.	a. The area and its archeological evidence can withstand considerable public use.	3	
	b. The area and its archeological evidence is subject to despoilment and attrition through recreational use.	2	
Highest possible rating		13	
			Total

Instructions:

The assigned ratings for each criterion have been made on a basis of the importance of each as characteristics of the area being evaluated. Intermediate ratings for the criterion choices can, and should be, used where the numerical value or spread is large. Use lesser numerical values down to and including zero (0) where this is necessary to express the true condition or situation. The higher the quality the higher the numerical rating. Do not give ratings higher than the maximum indicated.

Entries to be made or checked by Unit Manager appear in box

- (1) Use this block for potential areas only. This will be the earliest year the area will be available and suitable for classification for this use.
- (2) Use this block for potential areas only.
- (3) Use this block for existing or classified areas only.

Where the area falls into more than one district or inventory unit, only one inventory and evaluation form need be completed. However, copies should be furnished each district involved.

Comments:

Key photographs and reference to file negatives:

Date _____

NFORRR Form 25

Examined by _____

FIELD INVENTORY

Evaluation of
HISTORICAL AREAS

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Number _____ Classified _____ Potential _____

District or (LUP)

Acres

Total

Location of Area: Describe by legal subdivisions or reference to map or
aerial photograph on which boundaries are delineated.

First Available Year (1) _____

(2) If an area has potential as an Historical Area but conflicts with other
resource management and is not available for recreation, enter "X" _____
and name conflicting resources _____

(3) If part or all of classified area will be eliminated from current
recreation use enter: Acres _____ Year _____
If acres so eliminated will be suitable and available for other
recreation use either as dispersed recreation area or development site,
complete "potential" inventory form and cross reference to this area
number.

Final Score _____ Quality _____

Approx. Ratings

Min. Outstanding . . 14

Min. Good 11

Min. Fair 5

RATE THE FOLLOWING

	<u>Ratings</u>	<u>Score</u>
1. a. The area contains exceptional or very significant sites, structures or landmarks exemplifying cultural, military, political, economic or social history that provide insight into our American heritage, or commemorate an important historical event.	5	
b. The area contains sites, structures or landmarks exemplifying or commemorating historical places and events.	2	
2. a. The structures or sites are associated with the lives of outstanding or important personages.	3	
b. The structures or sites are associated with the lives of interesting or colorful personages or events.	1	
3. a. The area contains structures representative of a period or movement, or structures that exemplify an unusual or lost skill or art.	3	
b. The area contains no such structures.	0	
4. a. No doubts exist as to the authenticity of the area, sites or structures.	5	
b. Some doubt exists as to the authenticity of the area, sites or structures. (It is debatable).	2	
Highest possible rating	16	

Total**Instructions:**

The assigned ratings for each criterion have been made on a basis of the importance of each as characteristics of the area being evaluated. Intermediate ratings for the criterion choices can, and should be, used where the numerical value or spread is large. Use lesser numerical values down to and including zero (0) where this is necessary to express the true condition or situation. The higher the quality the higher the numerical rating. Do not give ratings higher than the maximum indicated.

Entries to be made or checked by Unit Manager appear in box

- (1) Use this block for potential areas only. This will be the earliest year the area will be available and suitable for classification for this use.
- (2) Use this block for potential areas only.
- (3) Use this block for existing or classified areas only.

Where the area falls into more than one district or inventory unit, only one inventory and evaluation form need be completed. However, copies should be furnished each district involved.

Comments:

Key photographs and reference to file negatives:

Date _____

NFORRR Form 26

Examined by _____

FIELD INVENTORY

Evaluation of
HUNTING HABITAT

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Number _____ Established _____ Potential _____

District or (LUP)

Acres

Total

Location of Area: Describe by legal subdivisions or reference to map or
aerial photograph on which boundaries are delineated.

First Available Year (1) _____

(2) If an area has potential as a Hunting Area but conflicts with other
resource management and/or is not available for recreation, enter
"X" _____ and name conflicting resources _____

(3) If part or all of established area will be eliminated from current
recreation use enter: Acres _____ Year _____
If acres so eliminated will be suitable and available for other recreation
use, either as dispersed recreation area or development site, complete
"potential" inventory form and cross reference to this area number.

(4) Evaluate for one:	<u>Final Score</u>	<u>Quality</u>	<u>Approx. Ratings</u>
Hunting habitat	_____	_____	Min. Outstanding . . 32
Big game hunting area	_____	_____	Min. Good 24
Small game hunting area	_____	_____	Min. Fair 16
Waterfowl hunting area	_____	_____	Unsatisfactory . . . Below 16

<u>RATE THE FOLLOWING</u>		<u>Ratings</u>	<u>Score</u> H : BG : SG : W
1. a.	Supports high game populations of one or more species, and moderate to low populations of a number of other species.	6	
b.	Supports a high to moderate game population of at least one species; or moderate population densities of a varied number of species.	4	
c.	Supports moderate to low game populations of one or more species.	2	
d.	Game is scarce.	1	
2A a.	Provides either high hunter success per visit or satisfaction. If satisfaction, rate 2B. Do not rate both.	4	
b.	Provides good hunter success or good expectation of success.	3	
c.	Provides fair hunter success or reasonable expectation of success.	2	
d.	Provides poor hunter success.	1	
2B a.	Provides high hunter satisfaction per visit.	4	
b.	Provides good hunter satisfaction per visit.	3	
c.	Provides fair hunter satisfaction per visit.	2	
d.	Provides poor hunter satisfaction per visit.	1	
3. a.	The environment is spectacular, stimulating, challenging or unusual.	4	
b.	The environment is pleasing, interesting, scenic.	3	
c.	The environment is not as above but either drab, ordinary, uninteresting or quite artificial.	2	

		<u>Ratings</u>	<u>Score</u>
			<u>H : BG : SG : W</u>
4. a.	Accessibility to the hunting area or areas by road, trail, or afoot is fitting or appropriate to the activity	3	
b.	Accessibility is inadequate.	2	
c.	Accessibility is excessive.	1	
5. a.	The area is large enough to accommodate considerable use--comparable in size to State hunting district, unit, county, large waterfowl concentration.	4	
b.	The area is intermediate in size between (a) and (c).	3	
c.	The hunting area is small--locales such as wooded butte, stream bottom, marsh, etc.	2	
6. a.	With present use crowded hunting conditions and hunter conflict do not exist.	2	
b.	Crowded hunting conditions and hunter conflict exist in some parts of the area (close to roads and trails).	1	
c.	Crowding and conflict are general throughout the area.	0	
7. a.	Information is scientifically and periodically gathered and used for management purposes. Such information includes data on game populations and trends, hunter harvest, hunter success, weights and general condition of game, condition and trend of habitat or range.	3	
b.	Some game management information is gathered, but not regularly or systematically.	2	
c.	Game management information is not gathered.	1	
d.	Game management information is gathered but not applied.	1	

		<u>Ratings</u>	<u>Score</u>
			H : BG : SG : W
8. a.	Habitat requirements of food, water, cover, space, etc., for the game species considered are near optimum with no indicators of a depletion trend.	5	
b.	The habitat is in good condition but there are indicators of depletion trend in some requirements.	3	
c.	The habitat is in poor condition and the trend very definitely downward. The limiting factors for different species can be altered through management practices.	1	
d.	The habitat is poor; the trend not downward but factors that limit populations are not readily altered by management.	1	
9. a.	The terrain, vegetative cover and other barriers to unmechanized travel are not formidable or forbidding. (Extensive thickets, windfall, thorny vegetation, deserts, unfordable streams).	3	
b.	Some parts present formidable obstacles to travel (rimrock, box canyons, extensive thickets, windfall, thorny vegetation, deserts, bogs, unfordable streams, numerous lakes and ponds).	2	
c.	Most of the area presents formidable obstacles to travel.	1	
10. a.	Seasons are favorable, being well-timed and sufficiently long as to provide reasonable choices of hunting days or weekends and to provide adequate harvest.	2	
b.	Seasons are not favorable.	1	
11. a.	The climate during season of use is favorable--not so extreme as to produce major discomfort or to interfere with proper care of game.	2	
b.	Climate is unfavorable.	1	
Highest possible rating		38	

Total

Instructions:

The assigned ratings for each criterion have been made on a basis of the importance of each as characteristics of the area being evaluated. Intermediate ratings for the criterion choices can, and should be, used where the numerical value or spread is large. Use lesser numerical values down to and including zero (0) where this is necessary to express the true condition or situation. The higher the quality the higher the numerical rating. Do not give ratings higher than the maximum indicated.

Entries to be made or checked by Unit Manager appear in box

--

- (1) Use this block for potential areas only. This will be the earliest year the area will be available and suitable for classification for this use.
- (2) Use this block for potential areas only.
- (3) Use this block for existing or classified areas only.

Where the area falls into more than one district or inventory unit, only one inventory and evaluation form need be completed. However, copies should be furnished each district involved.

Hunting Areas rating unsatisfactory will be considered and tabulated not as existing or established areas but as potential areas; providing their quality can be raised through management.

Comments:

Key photographs and reference to file negatives:

Date _____

NFORRR Form 27

Examined by _____

FIELD INVENTORY

Evaluation of
FISHING WATERS

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Number _____ Established _____ Potential _____

Stream Miles _____ Av. Stream Width (Chains) _____

Stream Acres: Miles _____ x Av. Width (Chains) _____ x 8 = Stream Acres _____

<u>District or (LUP)</u>	<u>Streams</u>		<u>Acres</u>	
	<u>Cold</u>	<u>Warm</u>	<u>Cold</u>	<u>Warm</u>

Total				

Location of Area: Describe by legal subdivisions or reference to map or aerial photograph on which boundaries are delineated.
In the case of streams indicate termini.

First Available Year (1) _____

(2) If an area has potential as Fishing Waters but conflicts with other resource management and/or is not available for recreation, enter "X" _____ and name conflicting resources _____

(3) If part or all of established area will be eliminated from current recreation use enter: Acres _____ Year _____
If acres so eliminated will be suitable and available for other recreation use either as dispersed recreation area or development site, complete "potential" inventory form and cross reference to this area number.

(4) Evaluate for one:	<u>Final Score</u>	<u>Quality</u>	<u>Approx. Ratings</u>
<u>Stream Fishing Areas</u>			Min. Outstanding. 36
(Cold Water Streams _____)	_____	_____	Min. Good 26
(Warm Water Streams _____)	_____	_____	Min. Fair 14
			Unsatisfactory . Below 14
<u>Lake and Pond Fishing Areas</u>			Min. Outstanding. 36
(Cold Water Lakes and Ponds _____)	_____	_____	Min. Good 26
(Warm Water Lakes and Ponds _____)	_____	_____	Min. Fair 14
			Unsatisfactory . Below 14

<u>RATE THE FOLLOWING</u>		<u>Ratings</u>	<u>Score</u>
1. a.	Supports high fish populations in good condition of one or more species of the better warm water or cold water game fish; or a moderate population of an unusual and sporting fish such as the steelhead.	5	
b.	Supports a moderate fish population of one or more better game species or; a high population of fish generally considered as less desirable game species.	4	
c.	Supports low populations of game species or high to moderate populations of less desirable species.	1	
d.	Supports low fish populations of all kinds.	0	
2. a.	The environment (including both water and land) is spectacular, inspirational, unique, highly scenic.	5	
b.	The environment is either pleasing, stimulating, scenic, interesting, relaxing; and not obviously artificial.	2	
c.	The environment is not as above but either drab, uninteresting, or quite artificial.	1	
3. a.	The fishing water is large enough to accommodate considerable use and can withstand fishing pressure. (River, large stream, or good sized lake).	5	
b.	The fishing waters are small (small creek, brook, pond, small lake), and/or cannot withstand much fishing pressure due to lack of cover, short growing season, shallow waters, etc.).	2	

	<u>Ratings</u>	<u>Score</u>
4. a. The water is clean with no pollution or siltation.	4	
b. There is no industrial pollution, little or no domestic pollution, but water may at times be turbid or muddy.	3	
c. There is silting or excessive organic decomposition and/or some domestic or industrial pollution.	1	
5. a. The water and watershed reflect good land and fish-water management so that there is little or no man-made or natural drawdown, flooding or turbidity during the main season of use. Included here are power surges and power and irrigation fluctuations.	3	
b. The water and watersheds are not managed for optimum fishing conditions--the stream or lake environment being subject to both natural and man-made flooding, drawdown, turbidity, most of which occurs during the season of least use.	1	
c. The conditions in (b) occur during season of heaviest use.	0	
6. a. There are few if any recreation uses that conflict with fishing.	3	
b. Use of motorboats and water skiing conflict with fishing but are regulated.	1	
c. Excessive and unregulated use of motorboats and water skiing conflict with fishing.	0	
7. a. Seasons for waters being evaluated are long and favorable. Fishing is year-round or near-year-round by virtue of a combination of seasons (for example, trout in warm weather, whitefish continuing through winter) or due to no need for a closed season (for example, bass and bluegills in warm water lakes).	3	
b. The open season is fitting and moderately long.	2	
c. Seasons are short and/or unfavorable in that they do not reflect up-to-date management practices.	1	

	<u>Ratings</u>	<u>Score</u>
8. a. The waters provide high fisherman success per visit as indicated by creel counts, fish taken per unit of time, pounds of fish, etc., or excellent expectation of success.	3	
b. Waters provide good fishing success or good expectation of success.	2	
c. Waters provide fair fishing success or reasonable expectation of success.	1	
9. a. Accessibility to fishing waters by road, trail or afoot is fitting or appropriate.	3	
b. Accessibility is inadequate, as for example, lack of boat ramps or access roads and parking areas at large reservoirs.	1	
c. Accessibility is excessive such as a highway or road along both sides of a stream, a road completely around and close to the edge of a lake.	1	
d. If accessibility along a river or big lake is both (b) and (c).	1	
10. a. The existing use is such that crowded fishing conditions do not exist and there is opportunity to get off by oneself.	3	
b. Fishing is crowded at certain times or places.	2	
c. Crowded fishing conditions and conflict between fisherman exist.	1	
11. a. Information is scientifically and periodically gathered for management purposes. Such information includes data on fish reproduction and survival, growth rates, results of creel censuses, and percent of harvesting.	3	
b. Some fish management information is gathered but not regularly or systematically.	2	
c. Fish management information is not gathered.	1	
12. a. Natural propagation maintains the fish population, but some hatchery stocking may be required, or has been required.	2	
b. Natural propagation slight or non-existent, largely hatchery stocked.	1	

	<u>Ratings</u>	<u>Score</u>
13. a. Size limits and creel limits conform to good fish management practices.	2	
b. Size limits and creel limits do not conform to good fish management practices.	1	
Highest possible rating	<u>44</u>	
		Total

Instructions:

The assigned ratings for each criterion have been made on a basis of the importance of each as characteristics of the area being evaluated. Intermediate ratings for the criterion choices can, and should be, used where the numerical value or spread is large. Use lesser numerical values down to and including zero (0) where this is necessary to express the true condition or situation. The higher the quality the higher the numerical rating. Do not give ratings higher than the maximum indicated.

Entries to be made or checked by Unit Manager appear in box

- (1) Use this block for potential areas only. This will be the earliest year the area will be available and suitable for classification for this use.
- (2) Use this block for potential areas only.
- (3) Use this block for existing or classified areas only.

Where the area falls into more than one district or inventory unit, only one inventory and evaluation form need be completed. However, copies should be furnished each district involved.

Fishing Waters rating unsatisfactory will be considered and tabulated not as established waters but as potential waters; providing their quality can be raised through management.

Comments:

Key photographs and reference to file negatives:

Date _____

NFORRR Form 28

Examined by _____

FIELD INVENTORY

Evaluation of
BOATING WATERS

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Number _____ Established _____ Potential _____

Stream Miles _____ Av. Stream Width (Chains) _____

Stream Acres: Miles x Av. Width (Chains) _____ x 8 = Stream Acres _____

District or (LUP)

Acres

	<u>Streams</u>		<u>Lakes</u>
	<u>Still</u>	<u>Fast</u>	<u>(Still)</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Total	_____	_____	_____

Total
Stillwater

Location of Area: Describe by legal subdivisions or reference to map or aerial photograph on which boundaries are delineated.
In case of streams indicate termini.

First Available Year (1) _____

(2) If an area has potential as Boating Waters but conflicts with other resource management and is not available for recreation, enter "X" _____ and name conflicting resources _____

(3) If part or all of established area will be eliminated from current recreation use enter: Acres _____ Year _____
If acres so eliminated will be suitable and available for other recreation use either as dispersed recreation area or development site, complete "potential" inventory form and cross reference to this area number.

(4) Evaluate one:	<u>Final</u> *(c)	<u>Score</u> *(m)	<u>Quality</u>	<u>Approx. Ratings</u>
<u>Still water</u>	_____	_____	_____	Min. Outstanding . . 40
<u>Fast or running water</u>	_____	_____	_____	Min. Good 27
				Min. Fair 17

For:
 *Canoeing, fold-boating,
 rafting (c)
 *Motorboating, sailing
 Water skiing, rowing (m)

<u>RATE THE FOLLOWING</u>		<u>Ratings</u>	<u>Score</u>	
			(c)	(m)
1. a.	The water is clear and clean with no pollution.	5		
b.	The water is somewhat contaminated and sometimes muddy or turbid.	4		
c.	The water is lightly polluted and often muddy or turbid.	3		
d.	The water is highly polluted.	1		
2. a.	The water is appropriately accessible for the type of boating being rated.	3		
b.	The water is not sufficiently accessible for the boating use being rated.	2		
c.	The water is too accessible.	1		
3. a.	The environment (including water, land, and wild-life) is spectacular, inspirational, unique, highly scenic or challenging.	5		
b.	The environment is either pleasing, stimulating, scenic, interesting, and/or relaxing.	3		
c.	The environment is not as above but either drab, ordinary, uninteresting, spoiled or quite artificial in appearance.	1		
4. a.	The water is "white water" or rapids that provide unusual boating adventure, challenge, isolation, an experiencing of numerous intangible values. Ex.: (Hells Canyon of Snake or Salmon River).	5		
b.	The water is "still", expansive, isolated, unusual, providing for extensive journeys and the experiencing of numerous intangible values.	5		
c.	The water is not as above or only partially so.	1 - 3		

		<u>Ratings</u>	<u>Score</u>	
			(c)	(m)
5.	a. During season of use there are few, if any, obstacles and hazards (rocks, mud flats, sand bars, floating and submerged logs or vegetation, strong winds, etc.) interfering with the activities checked.	4		
	b. There are hazards and obstacles such as rapids, currents, rocks, low water or cold water that enhance the activity checked.	4		
	c. There are obstacles and hazards that detract from the pleasure and/or safety of boating.	3		
	d. Obstacles and hazards very definitely interfere with boating.	1		
6.	a. The boating season is long and favorable throughout.	5		
	b. The boating season is moderately long and favorable.	3		
	c. The boating season is short and/or erratic and unfavorable due to early winters, adverse climate or water temperatures, seasonal winds, low water or water drawdown, floods, etc.	1		
7.	a. Boating is not crowded.	3		
	b. Boating is crowded in some areas and/or at times of peak use.	2		
	c. General crowded boating conditions exist.	1		
8.	a. There are few, if any, recreation or other uses that conflict with the boating activity checked.	3		
	b. Swimming, fishing, water skiing, other forms of boating or other uses conflict somewhat with the boating activity checked.	2		
	c. Other recreation activities and other uses definitely conflict with the boating activity checked.	1		

		<u>Ratings</u>	<u>Score</u>	
			(c)	(m)
9.	a. The boating water is large enough in area, or length, width, and volume of water to accommodate considerable use.	5		
	b. The boating water is intermediate in size.	3		
	c. The boating water is small for the activity checked.	1		
10.	a. Shoreline land providing good undeveloped or developed camp and picnic sites and opportunities for varied recreation activities is plentiful.	5		
	b. Such shoreline recreation land with accompanying recreation opportunities is rather limited or of only fair quality.	3		
	c. Shoreline recreation land or opportunities are scarce or lacking, poor or spoiled.	1		
11.	a. Fishing rates excellent.	3		
	b. Fishing rates good to fair.	2		
	c. Fishing is inconsequential or poor.	1		
Highest possible rating		46		

Total

INSTRUCTIONS

The assigned ratings for each criterion have been made on a basis of the importance of each as characteristics of the area being evaluated. Intermediate ratings for the criterion choices can, and should be, used where the numerical value or spread is large. Use lesser numerical values down to and including zero (0) where this is necessary to express the true condition or situation. The higher the quality the higher the numerical rating. Do not give ratings higher than the maximum indicated.

Entries to be made or checked by Unit Manager appear in box

- (1) Use this block for potential areas only. This will be the earliest year the area will be available and suitable for classification for this use.
- (2) Use this block for potential areas only.
- (3) Use this block for existing or classified areas only.

Where the area falls into more than one district or inventory unit, only one inventory and evaluation form need be completed. However, copies should be furnished each district involved.

Comments:

Key photographs and reference to file negatives:

Date _____

NFORRR Form 29

Examined by _____

FIELD INVENTORY

Evaluation of
MOUNTAIN CLIMBING AREAS

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Number _____ Established _____ Potential _____

District or (LUP)

Acres

Total

Location of Area: Describe by legal subdivisions or reference to map or
aerial photograph on which boundaries are delineated.

First Available Year (1) _____

(2) If an area has potential as a Mountain Climbing Area but conflicts with
other resource management and is not available for recreation, enter
"X" _____ and name conflicting resources _____

(3) If part or all of established area will be eliminated from current
recreation use enter: Acres _____ Year _____
If acres so eliminated will be suitable and available for other recreation
use either as dispersed recreation area or development site, complete
"potential" inventory form and cross reference to this area number.

Final Score _____ Quality _____

Approx. Ratings

Min. Outstanding . . 19
 Min. Good 15
 Min. Fair 7

<u>RATE THE FOLLOWING</u>		<u>Ratings</u>	<u>Score</u>
1. a.	The mountain range containing the area under consideration is recognized by climbing guide books and skilled climbers as offering unusual, numerous and varied climbing opportunities.	5	
b.	Good opportunities, but limited.	3	
c.	Fair opportunities and little variety.	1	
2. a.	The rock is hard and firm such as granitic-gneiss. It is not normally wet or slippery. It provides safe climbing.	5	
b.	The rock is not hard, often loose, weathered or sedimentary. The rock is not considered as providing really safe climbing.	2	
c.	The rock is dangerous.	0	
3. a.	The area provides a combination of hard rock, snow, and ice climbs.	3	
b.	The area provides good to fair climbing rock, some snow, but no ice climbs except in winter.	2	
c.	The area provides only rock climbs.	1	
4. a.	The area provides some challenging new ascents, some unexplored routes or mountains or some difficult and challenging established ascents.	3	
b.	The area provides good climbing but not the above characteristics.	1	
5. a.	The climbing area or areas are at a high altitude--11,000 to 14,000 ⁺ feet.	3	
b.	The climbing area is below 11,000 feet in altitude but the actual climb may be 3,000 to 4,000 vertical feet or more.	2	
c.	The climbing area is at a low altitude--4,000 feet or less. The vertical climb is under 3,000 feet.	1	

	<u>Ratings</u>	<u>Score</u>
6. a. The climbs provide views of unique and unusual scenery -- extensive vistas, rugged peaks, glaciers, the experiencing of a wide range of intangible values including observation of wildlife.	3	
b. The climbs provide interesting but not unusual scenery; the experiencing of intangible values.	2	
c. The scenery is not particularly inspiring.	<u>1</u>	
Highest possible rating	22	
		Total

INSTRUCTIONS

The assigned ratings for each criterion have been made on a basis of the importance of each as characteristics of the area being evaluated. Intermediate ratings for the criterion choices can, and should be, used where the numerical value or spread is large. Use lesser numerical values down to and including zero (0) where this is necessary to express the true condition or situation. The higher the quality the higher the numerical rating. Do not give ratings higher than the ~~maximum~~ indicated.

Entries to be made or checked by Unit Manager appear in box

- (1) Use this block for potential areas only. This will be the earliest year the area will be available and suitable for classification for this use.
- (2) Use this block for potential areas only.
- (3) Use this block for existing or classified areas only.

Where the area falls into more than one district or inventory unit, only one inventory and evaluation form need be completed. However, copies should be furnished each district involved.

Comments:

Key photographs and reference to file negatives:

Date _____

Examined by _____

NFORRR Form 30

FIELD INVENTORY

of
ROADSIDE, TRAILSIDE, WATERFRONT ZONES

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Number _____ Classified _____ Potential _____

Length of zone _____ Average width of zone _____

District or (LUP)

Acres

Total

Location of Area: Describe termini of zones.

First Available Year (1) _____

(2) If an area has potential as a Zone but conflicts with other resource management and is not available for recreation, enter "X" _____ and name conflicting resources _____

(3) If part or all of established area will be eliminated from current recreation use enter: Acres _____ Year _____
If acres so eliminated will be suitable and available for other recreation use either as dispersed recreation area or development site, complete "potential" inventory form and cross reference to this area number.

INSTRUCTIONS

Roadside, waterfront, and trailside zones will be only inventoried and delineated on a unit map. They will not be evaluated and segregated into quality classes. Under "Remarks" briefly describe the zones recording such information as: general condition of zone, special features or conditions, present management, vegetation types; soil, terrain, and topographic data. Include other information that seems pertinent to the use or management of the area.

Under "name" fill in road or trail number or name of body of water such as "Lost Lake waterfront zone."

Entries to be made or checked by Unit Manager appear in box

- (1) Use this block for potential areas only. This will be the earliest year the area will be available and suitable for classification for this use.
- (2) Use this block for potential areas only.
- (3) Use this block for established areas only.

Where the area falls into more than one district or inventory unit, only one inventory and evaluation form need be completed. However, copies should be furnished each district involved.

Comments:

Key photographs and reference to file negatives:

Date _____

NFORRR Form 31

Examined by _____

FIELD INVENTORY

of
HIKING AND RIDING AREAS

Region _____ State _____ County _____ Forest _____ District _____ or (LUP) _____

Name _____ Number _____ Established _____ Potential _____

District or (LUP)

Acres

Total

Location of Area: Describe by legal subdivisions or reference to map or
aerial photograph on which boundaries are delineated.

First Available Year (1) _____

(2) If an area has potential as a Hiking and Riding Area but conflicts with
other resource management and is not available for recreation, enter
"X" _____ and name conflicting resources _____

(3) If part or all of established area will be eliminated from current recreation
use enter: Acres _____ Year _____
If acres so eliminated will be suitable and available for other recreation
use either as dispersed recreation area or development site, complete
"potential" inventory form and cross reference to this area number.

Quality _____

INSTRUCTIONS

Under "Remarks" briefly describe the area, recording such information as general topography, special features or conditions, vegetation types, distribution, condition and estimated miles of trails. Include other information that seems pertinent to the use or management of the area.

Under "Name" use major trail name, topographic division or other readily recognized and associated designation.

See instructions, Hiking and Riding Areas for recording quality.

For zone widths refer to (FSM 2323.2 - 2323.5)

Entries to be made or checked by Unit Manager appear in box

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- (1) Use this block for potential areas only. This will be the earliest year the area will be available and suitable for classification for this use.
- (2) Use this block for potential areas only.
- (3) Use this block for established areas only.

Where the area falls into more than one district or inventory unit, only one inventory and evaluation form need be completed. However, copies should be furnished each district involved.

Comments:

Key photographs and reference to file negatives:

